This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

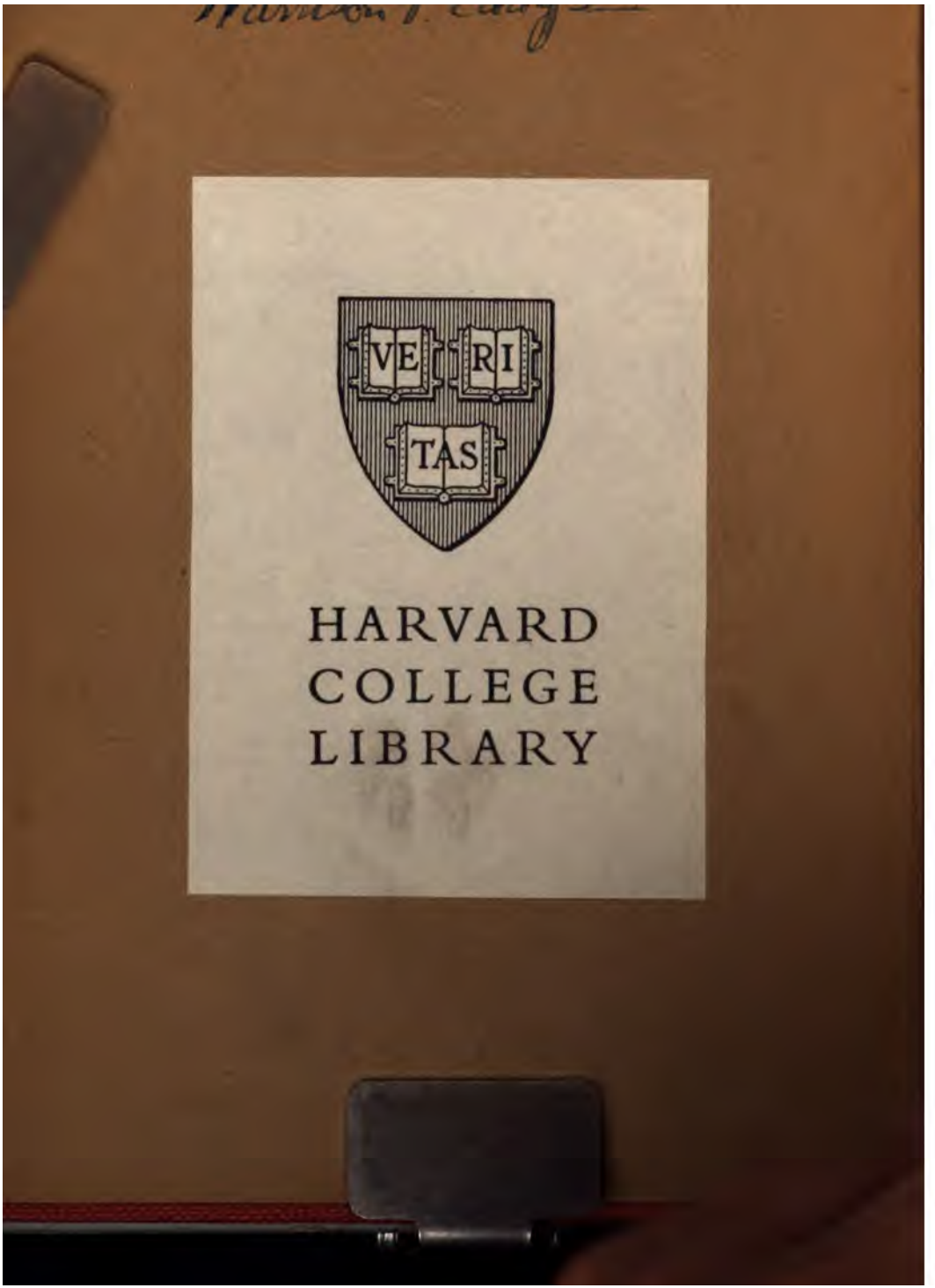
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

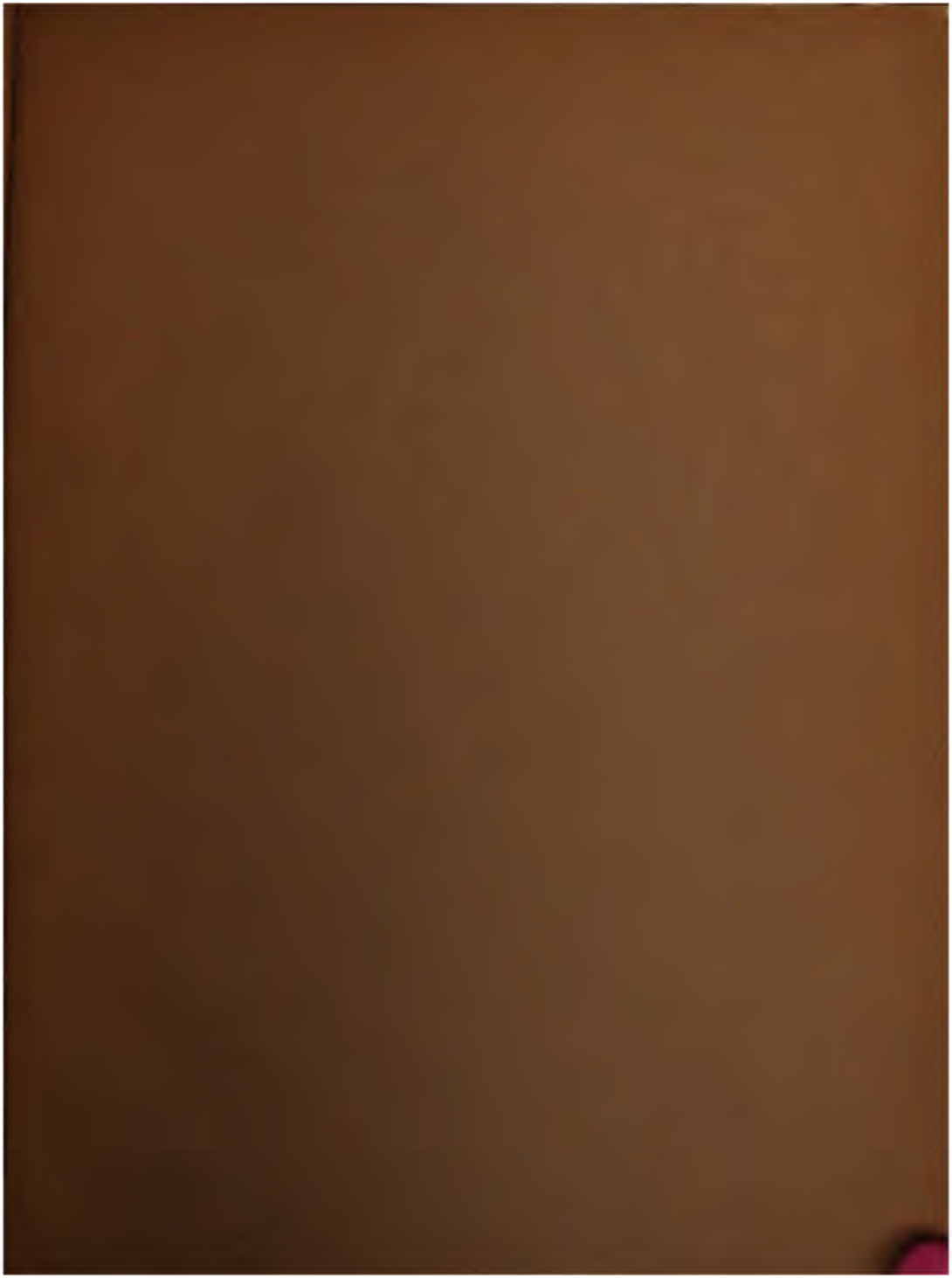
About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

THE SCHOOL ARTS BOOK


VE RI
TAS
HARVARD
COLLEGE
LIBRARY

3 2044 096 984 737



THE SCHOOL ARTS BOOK

HENRY TURNER BAILEY, EDITOR

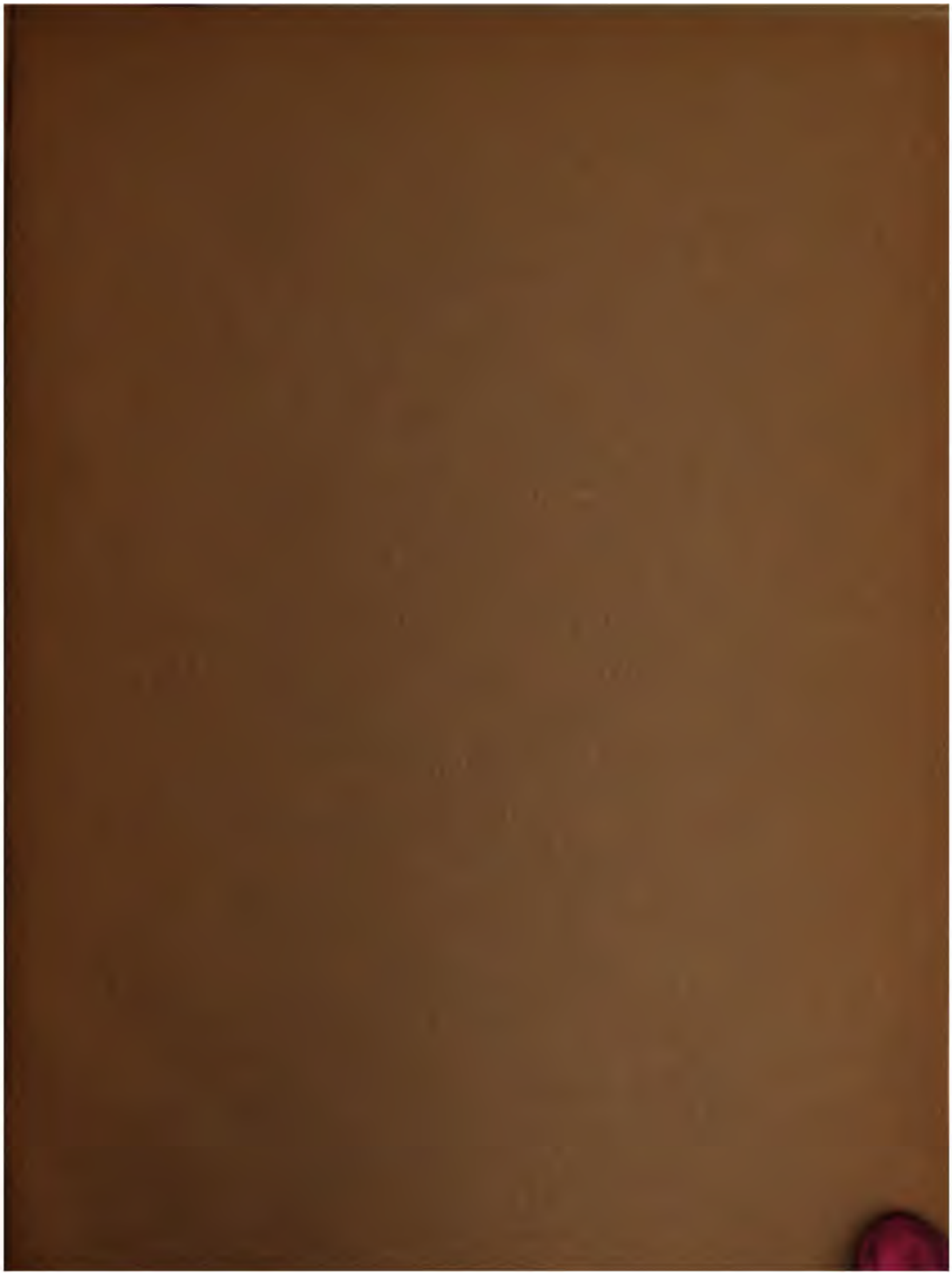
VOLUME NINE
September, 1909 to June, 1910
Copyright, 1910 by The Davis Press
All Rights Reserved

PUBLISHED BY
THE DAVIS PRESS, WORCESTER, MASS.
1910

Educ 2225.2.5F
Harrison P. Eddy 3rd

HARVARD
COLLEGE
LIBRARY

3 2044 096 984 737



THE SCHOOL ARTS BOOK

HENRY TURNER BAILEY, EDITOR

VOLUME NINE

September, 1909 to June, 1910

Copyright, 1910 by The Davis Press
All Rights Reserved

PUBLISHED BY
THE DAVIS PRESS, WORCESTER, MASS.
1910

A
F.d.c 222523
✓

HARVARD
UNIVERSITY
LIBRARY

THE SCHOOL ARTS BOOK INDEX

(VOLUME IX)

ANNOTATED LESSONS

Elementary School, September, Bailey, p. 1070.
High School, Freehand, September, Brown, p. 1078.
High School, Mechanical, September, Mathewson, p. 1079.

APPRECIATION OF BEAUTY

Ten Great Paintings, Bailey: III, The Mother, Whistler; p. 11; IV, Ulysses Deriding Polyphemus, Turner, p. 133; V, The Sistine Madonna, Raphael, p. 321; VI, The Assumption, Titian, p. 732.

ART SCHOOLS

List of Summer Art Schools, p. 1021.

BOOK REVIEWS

Addresses and Proceedings of the National Education Association, Denver, 1909, p. 789.
American Art Annual, Levy, p. 1010.
Art of the Vatican, The, Potter, p. 677.
Arts and Crafts in the Middle Ages, Addison, p. 788.
Basket Maker, The, Turner, p. 306.
Bibliography of Education, Bureau of Education, p. 677.
Cathedral Builders, The, Scott, p. 1133.
Education for Efficiency, Eliot, p. 547.
Education Through Music, Farnsworth, p. 677.
Elementary Principles of Industrial Drawing, Jepson, p. 191.
English Literature, Long, p. 306.
Essentials of Lettering, The, French and Meiklejohn, p. 788.
Forget-me-nots, Wilson, p. 421.
Fourth Reader, A, Spaulding and Bryce, p. 678.
Frogs o'Poolo, Crowell, p. 546.
Graded Course in Mechanical Drawing for Grammar Schools, A, Ketchum, p. 308.
Handbook of English Composition, Carson, p. 1010.
Instruction in the Fine and Manual Arts in the United States, Bailey, p. 307.
Keltic Art in Pagan and Christian Times, Allen, p. 1133.
Landscape Painting, Harrison, p. 787.
Leading Facts of American History, Montgomery, p. 789.
Manual Arts for Elementary Schools, The, Hammock, p. 192.
Modelling in Public Schools, Sargent, p. 192.
Modern Methods of Arts Instruction, Wyse, p. 307.
Oriental Rugs, Dilley, p. 192.
Potter's Craft, The, Binns, p. 1009.
Practice of Oil-Painting and Drawing, The, Solomon, p. 1009.

Problems in Wood Turning, Crawshaw, p. 544.
Public School Penmanship, Clark, p. 194.
School Drawing, Daniels, p. 420.
School Garden Book, The, Weed and Emerson, p. 420.
Selected Shop Problems, Seaton, p. 1133.
Simplified Mechanical Perspective, Frederick, p. 545.
Spool Knitting, McCormack, p. 193.
Story of Dutch Painting, The, Caffin, p. 544.
Wood-Carving, Bjurman, p. 1134.
Wood Turning, Ross, p. 546.
Woodwork for Schools, Bailey and Pollitt, p. 191.

CALENDARS

September, p. 78; October, p. 176; November, p. 286; December, p. 400; January, p. 526; February, p. 656; March, p. 770; April, p. 876; May, p. 986; June, p. 1114.

COLOR

Color, Wilson: I, Color Quality, p. 583; II, Color Formulas, p. 715; III, A Color Standard, p. 836.

CONSTRUCTIVE DRAWING AND HANDICRAFT

Aquarium, p. 16.
Belt and Bag, p. 1086.
Blacking Stand, p. 259.
Boy's Muffler, p. 757.
Brass Candleshade, p. 352.
Bureau Tray, p. 253.
Butterfly, p. 785.
Calendar Holder, p. 395.
Candlestick and Shade, p. 345.
Colonial Costume, p. 514.
Color Wheel, p. 159.
Costume of an Irish Bard, p. 974.
Daisy Costume, p. 864.
Darning Balls, p. 157.
Dicky or Protector, p. 863.
Doilies, p. 921.
Doll's Muff and Tippet, p. 387.
Dutch Wind-mill and Weather Vane, p. 753.
Elephant Tie Holder, p. 268.
English Peasant Costume, p. 272.
Envelope, p. 416.
Examples of Enamel Work, p. 1097.
Finger Ring, p. 520.
Foot Stools, p. 508.
Furniture, p. 747.

Garden Furniture, p. 812.
German Maiden's Costume, p. 389.
Hand Bag, p. 861.
Highland Costume, p. 758.
Hood, p. 642.
Hunting Knife, p. 57.
Illustrations of Water Transportation, p. 414.
Indian Blanket and Headdress, p. 270.
Indian Club, p. 57.
Indian Club Swinger, p. 859.
Indian Village, p. 303.
Jewel Box, p. 254.
Jumping-jack, p. 250.
Key-holder, p. 418.
Kites, p. 598.
Lamp Mats, pp. 963, 965
Mallet, p. 265.
Marble Bag, p. 755.
Match Box, p. 765.
May Baskets, p. 807.
Memorandum Pad, p. 418.
Metal Watch Fob, p. 67.
Model Stand, p. 225.
Monitor, p. 639.
Night Light, p. 652.
Paper Doll, p. 301.
Paper Weights, pp. 384, 981
Pendant, p. 870.
Pennants, p. 1006.
Pen Tray, p. 169.
Pottery, pp. 329, 925.
Rug, Bath, p. 512.
Rug, Two-strand, p. 162.
Sandals, p. 970.
Santa Claus, p. 417.
Scarf Pin, p. 278.
Skee Press, p. 675.
Skees, p. 509.
Slippers, Woven, p. 1130.
Spanish Costume, p. 1090.
Stern-Paddle Boat, p. 159.
Swedish Costume, p. 645.
Table Mat, p. 65.
Taborettes, p. 636.
Tam o'Shanter Cap, p. 972.
Toboggan, p. 642.

Toy Pistol, p. 252.
Triptych, p. 257.
Umbrella Stands, p. 855.
Wall Pin Shield, p. 256.
Wigwam, p. 917.
Yacht Model, p. 1083.

CONTRIBUTORS

Andrews, Lena L., p. 303.
Bachman, Frank P., p. 935.
Bailey, Henry Turner, pp. 11, 38, 133, 138, 244, 321, 361, 403, 489, 577, 582, 619, 732, 738, 842, 879, 956, 989, 1070, frontispiece, January no.
Bancroft, Lydia, A., p. 1000.
Bier, Anna, p. 417.
Bigelow, Gertrude I., p. 803.
Boone, Cheshire L., pp. 118, 329, 925.
Bowdish, B. S., p. 695.
Brainard, Winifred, p. 675.
Brown, Harold Haven, pp. 48, 152, 260, 377, 502, 629, 747, 853, 965, 1078.
Bull, Schuyler, p. 470.
Cain, Mary M., p. 1130.
Campbell, Floy, pp. 705, 946.
Carret, Frances W., p. 23.
Chaplain, Helene Jensen, pp. 301, 807.
Clark, Ida Hood, p. 917, 1045.
Cook, Mary L., p. 1003.
Dana, John Cotton, p. 1052.
Day, Lewis F., p. 207.
Dean, Arthur D., p. 561.
Doyle, Mima C., pp. 350, 785.
Eggers, George W., p. 822.
Eliot, Charles W., p. 3.
Elson, William H., p. 935.
Farnum, Royal B., p. 225.
Frederick, Frank F., p. 437.
Fuller, Alice, p. 1004.
Getz, Elizabeth M., p. 357.
Gideon, Samuel E., p. 449.
Griswold, Evelyn M., p. 236.
Hall, James, pp. 27, 341, 455, frontispieces, February, March, April, May.
Haney, James P., p. 1065.
Hayman, Maud M., p. 1007.
Hyde, Blanche E., pp. 59, 164, 272, 389, 514, 645, 758, 864, 974, 1090.
Jennings, Charles B., p. 810.
Keller, Henry G., supplement, December.
Kellogg, Elizabeth, pp. 78, 176, 286, 400, 526, 656, 770, 876, 986.

Kenyon, Walter J., p. 722.
Keyworth, Elizabeth A., p. 1037.
Leavitt, Frank M., p. 231.
Levy, Florence N., p. 460.
Mathewson, Frank E., pp. 155, 265, 381, 506, 634, 749, 855, 966, 1079.
Matsuki, Kihachero, p. 127.
Miller, Charles Milan, p. 598.
Morss, Louise K., p. 103.
Muzzey, Alice B., p. 586.
Odlin, Susan I., p. 345.
Parsons, Grace E., p. 414.
Paton, Lanice, p. 1057.
Pearson, Mary A., p. 568.
Pretz, Florence, p. 658.
Reed, Charlotte, pp. 34, 1033.
Ripley, Grace W., pp. 216, 921.
Rose, Augustus F., pp. 67, 169, 278, 395, 520, 652, 765, 870, 981, 1097.
Sanford, Frank G., pp. 57, 159, 268, 384, 509, 639, 753, 859, 970, 1083.
Sargent, Elisa Anne, p. 441.
Sargent, Walter, p. 99.
Scott, Charles T., p. 812.
Scribner, Arthur W., p. 911.
Simpson, Maud A., p. 352.
Smith, Annie, p. 418.
Steiger, Katharine F., pp. 65, 162, 270, 387, 512, 642, 755, 861, 972, 1086
Titcomb, Martha Ross, p. 16.
Updike, D. Berkeley, p. 689.
Wilson, Louis W., pp. 583, 715, 836.

DECORATIVE DESIGN

An Aid to Conventional Design, Scribner, p. 911.
Applied Design, Cook, p. 1003.
Design and Two Trades, Ripley, p. 216.
Doily Designs, Ripley, p. 921.
To Students of Design, Day, p. 207.

EDITORIALS

Announcements for Volume X, p. 1117.
Arbor Day, p. 880.
Decorative Chapter Headings, p. 773.
Dr. William T. Harris, p. 529.
Fads, p. 73.
Il Palio, p. 989.
"Passing of the Leaves, The," p. 179.
Patriots' Month, p. 879.
Pen Craft, p. 181.
Thanksgiving in the City and in the Country, p. 289.

Thoroness, p. 403.
Totems, p. 994.
Valentines, p. 659.

LETTERING

Pen Craft in School Work, Hall: II, p. 27; III, p. 341.

LIFE DRAWING

Pose Drawing, Campbell, p. 946.

MISCELLANEOUS

Accidental Ink Pictures, Gideon, p. 449.
Agassiz School Experiment, The, Leavitt, p. 231.
A Model Stand, Farnum, p. 225.
An Experiment in Picture Study, Sargent, p. 99.
Art Heritage of Industry, The, Haney, p. 1065.
Balanced Aquarium, The, Titcomb, p. 16.
Bird Study in Schools, Bowdish, p. 695.
Border Land of Youth, The, Bancroft, p. 1000.
Box Furniture, Brigham, p. 308.
Brass Candleshade, A, Simpson, p. 352.
Candlestick and Shade, A, Odlin, p. 345.
Chautauqua, Eggers, p. 822.
Children's Classes in an Art School, Frederick, p. 437.
Chuigi and His Stencils, Kenyon, p. 722.
Civic Pride in Public Schools, Updike, p. 689.
Class Christmas Tree, A, Getz, p. 357.
Damascus Inlaying, Paton, p. 1057.
Drawing Old Glory, Hayman, p. 1007.
Educative Values of Drawing, Bailey, p. 577.
Enameling, Rose, p. 1097.
Exhibit of Work from the Brookline (Mass.) Schools, p. 1103.
Garden Furniture, Scott, p. 812.
Home Beautiful, The, Morss, p. 103.
Kite Craft, Miller, p. 598.
Manual Arts in the Open Air, Clark, p. 1045.
May Baskets, Chaplain, p. 807.
Milwaukee Meeting, The, Dean, p. 561.
Multicopy in Tones, Reed, p. 34.
Notan, Bull, p. 470.
Out-door Sketching, Keyworth, p. 1037.
Poster Lesson, Fuller, p. 1004.
Pottery Craft in Schools, Boone; I, p. 118; II, p. 329; III, p. 925.
Priceless Handwork, Doyle, p. 350.
Public Art Education, Eliot, p. 3.
Public School Drawing and Its Relation to Industry, Elson and Bachman, p. 935.
Recent Exhibition of Early American Art at the Metropolitan Museum, The, Hall, p. 455.

School Use of the Stereopticon, Jennings, p. 810.
Still Life Composition, Sargent, p. 441.
Studies in Space-Filling, I, The Square, Muzzey, p. 586.
Transparency of Goldfish, A, Bigelow, p. 803.
Two Centuries of Industrial Art in America, I, The Chair, Levy, p. 460.
Unbacked Book, The, Griswold, p. 236.
Use of Flowers in Education, Dana, p. 1052
Variations on a Line Theme, Reed, p. 1033.
Weather Records, Carret, p. 23.
White Silhouettes, Matsuki, p. 127.
Wigwams, Clark, p. 917.

MODEL AND OBJECT DRAWING

Perspective, Campbell, p. 705.

OUTLINES

Elementary School, Bailey: For October, p. 38; November, p. 138; December, p. 244; January, p. 361; February, p. 489; March, p. 619; April, p. 738; May, p. 842; June, p. 956.
High School, Freehand, Brown: For October, p. 48; November, p. 152; December, p. 260; January, p. 377; February, p. 502; March, p. 629; April, p. 747; May, p. 853; June, p. 965.
High School, Mechanical, Mathewson: For November, p. 155; December, p. 265; January, p. 381; February, p. 506; March, p. 634; April, p. 749; May, p. 855; June, p. 966.

REPRESENTATION

Teaching the Principles of Representation, Pearson, p. 568.

WORKSHOP

Metalry, Rose: Metal Watch Fob, p. 68; Pen Tray, p. 169; Scarf Pin, p. 278; Calendar Holder, p. 395; Finger Ring, p. 520; Night Light, p. 652; Match Box, p. 765; Pendant, p. 870; Paper Weight, p. 981; Enameling, p. 1097.
Needlework, Costumes for Folk Dances, Hyde: Harvest Costume, p. 62; Indian Costume, p. 164; English Peasant Costume, p. 272; German Maiden's Costume, p. 389; Colonial Costume, p. 514; Swedish Costume, p. 645; Highland Costume, p. 758; Daisy Costume, p. 864; Costume of an Irish Bard, p. 974; Spanish Costume, p. 1090.
Weaving, Steiger: Table Mat, p. 65; Two-strand Rug, p. 162; Indian Blanket and Headdress, p. 270; Doll's Muff and Tippet, p. 387; Large Bath Rug, p. 512; Doll's Hood and Toboggan, p. 642; Marble Bag, p. 755; Boy's Muffler, p. 757; Hand Bag, p. 861; Dicky or Protector, p. 863; Doll's Tam o'Shanter Cap, p. 972; Belt and Bag of Braid, p. 1086.
Woodworking, Sanford: Indian Club and Hunting Knife, p. 57; Color Wheel, Stern-paddle Boat, p. 159; Elephant Tie Holder, p. 268; Pig Paper Weight, p 384; Skees, p. 509; Monitor, p. 639; Dutch Wind Mill and Weather Vane, p. 753; Indian Club Swinger, p. 859; Sandals, p. 970; Model Yacht, p. 1083.

The School Arts Book

AN ILLUSTRATED MONTHLY MAGAZINE for THOSE INTERESTED IN DRAWING *and the* ALLIED ARTS

HENRY TURNER BAILEY
EDITOR

September to June inclusive — $1.50 a year, in advance

VOL. IX — SEPTEMBER, 1909 — NO. 1

Entered at the Post Office at Worcester, Mass., as second class matter, August 17, 1903

CONTENTS

Public Art Education	Charles W. Eliot
Ten Great Paintings, III	Henry Turner Bailey
The Balanced Aquarium	Martha Ross Titcomb
Weather Records	Frances W. Carret
Pen Craft in School Work, II	James Hall
Multicopy in Tones	Charlotte Reed
Annotated Outlines, October, with Illustrations,	Reference Material
The Workshop—Indian Club, Hunting Knife	Frank G. Sanford
Table Mat	Katherine F. Steiger
Harvest Costume	Blanche E. Hyde
Metal Watch Fob	Augustus F. Rose
Editorial: Fads, Ideals for the Year, Cover Stamps, etc.	Editor
Helpful Correspondence School Arts Guild	The Arts Library
Reliable Advertisements	Trade News

Published by THE DAVIS PRESS, Worcester, Mass.

COPYRIGHT, 1909, BY THE DAVIS PRESS. ALL RIGHTS RESERVED.

BULLETIN

With unusual satisfaction we announce the decision of Mr. Luther W. Turner of The Hill School, Pottstown, Pa., to give to The School Arts Book the results of his experiences with Dr. Grenfel this summer in formulating a plan for manual arts instruction for the people of Labrador.

We are happy to be able to announce also a series of articles on Pottery Processes by Mr. Cheshire L. Boone, of Montclair, N. J., our foremost advocate of clay as an art educational medium, and one who has proved that he can "deliver the goods."

The October number will contain, among other good things, an illustrated account of a novel and most successful Experiment in Picture Study, by Prof. Walter Sargent of the University of Chicago, with plates loaned by the Boston Museum of Fine Arts; an original method of studying The Home Beautiful, by Miss Louise K. Morss, of the Normal Model School, Hyannis, Mass.; and a series of rare White Silhouettes from Chiseled Stone, with an explanatory note by Mr. Bunkio Matsuki of Boston.

FORWARD

Endeavor with each fresh beginning
To know the truth. 'Tis truly worth the winning.
Enrich the soul with every passing hour;
And when warm roses bloom in Evening's bower,
And once again a full day sinks to rest,
A star of hope shall glitter in the west.

Minnie E. Hays

THE SCHOOL ARTS BOOK

HENRY TURNER BAILEY, EDITOR

VOLUME NINE
September, 1909 to June, 1910
Copyright, 1910 by The Davis Press
All Rights Reserved

PUBLISHED BY
THE DAVIS PRESS, WORCESTER, MASS.
1910

from beginning to end, from the kindergarten through the university, more attention is being given than formerly to the training of the senses. The medical education of to-day is widely different from that of forty years ago in this respect; and in the industrial education, which we are beginning to develop, much higher regard is being paid to the training of the senses than used to be the case.

Now, if art education were sufficiently attended to through all our schools and in all our colleges, there would gradually grow up in American society considerable numbers of persons whose artistic sense had been somewhat trained. What would be the consequence of that improvement? The consequence would be that there would go down through the subsequent generations an inherited faculty in art, an inherited sensibility to artistic impressions, and a new capacity for enjoyment. I have personally known a mature woman who had the faculty of sketching with pencil and brush, and who took the trouble to interest her children in sketching; and now I have seen the children of these children develop the same faculty. This artistic sense and this capacity for enjoyment have been possessed already by three generations, and their lives have been greatly enriched by the possession. From that one woman started this potent stream, potent in cultivating the accurate use of the senses, potent, also, in supplying great elements of enjoyment all through life. This is the first, and perhaps the most precious result that ought to flow from the adequate development of art instruction in American schools and colleges.

The artistic faculties of human nature were neglected by our Puritan ancestors. When I was a boy and young man, skill in drawing and painting, or in music, was always referred to as an accomplishment. It was not a necessary part of education. It was a frill or non-essential addition to education; and,

indeed, for a young man to be musical was to encourage the supposition that he was not going to be a sensible and profitable member of society. I recall, as characteristic of Boston public opinion only sixty or seventy years ago, a case that came under my own observation, where the parents of an excellent young lady, herself having an artistic faculty, positively refused their consent to her marriage with a promising young man, on the ground that he loved music and sang tenor. It was very much so about drawing and painting. For the descendants of the Puritans they were not creditable tastes. They were not serious working faculties.

In striving to extend and improve art instruction in Massachusetts schools we thus encounter an adverse tradition and an uninformed condition of public opinion, even among educated people. We are making some progress, but we are not accomplishing enough in either schools or colleges. The adequate development of art education must await the coming of individual teaching into the public schools. A fundamental reform needed in our schools is, of course, fewer pupils before each teacher. How hopeless the conditions were in Boston a few years ago, when the regulations put fifty-six pupils before one teacher! The new School Committee has bettered these conditions a little; but much, very much, remains to be done before the opportunities for individual instruction in our schools in any subject can be considered satisfactory. In schools to which drawing has been admitted the time allotted to the subject is often utterly inadequate. An hour or an hour and a half a week is considered by programme makers very liberal; but how inadequate is that time! Drawing, I had almost said, is as valuable and important a mode of expressing thoughts and making exact records as language itself. An explorer has just been telling me of his experiences when he got among savages whose language he

School Use of the Stereopticon, Jennings, p. 810.
Still Life Composition, Sargent, p. 441.
Studies in Space-Filling, I, The Square, Muzzey, p. 586.
Transparency of Goldfish, A, Bigelow, p. 803.
Two Centuries of Industrial Art in America, I, The Chair, Levy, p. 460.
Unbacked Book, The, Griswold, p. 236.
Use of Flowers in Education, Dana, p. 1052
Variations on a Line Theme, Reed, p. 1033.
Weather Records, Carret, p. 23.
White Silhouettes, Matsuki, p. 127.
Wigwams, Clark, p. 917.

MODEL AND OBJECT DRAWING

Perspective, Campbell, p. 705.

OUTLINES

Elementary School, Bailey: For October, p. 38; November, p. 138; December, p. 244; January, p. 361; February, p. 489; March, p. 619; April, p. 738; May, p. 842; June, p. 956.
High School, Freehand, Brown: For October, p. 48; November, p. 152; December, p. 260; January, p. 377; February, p. 502; March, p. 629; April, p. 747; May, p. 853; June, p. 965.
High School, Mechanical, Mathewson: For November, p. 155; December, p. 265; January, p. 381; February, p. 506; March, p. 634; April, p. 749; May, p. 855; June, p. 966.

REPRESENTATION

Teaching the Principles of Representation, Pearson, p. 568.

WORKSHOP

Metalry, Rose: Metal Watch Fob, p. 68; Pen Tray, p. 169; Scarf Pin, p. 278; Calendar Holder, p. 395; Finger Ring, p. 520; Night Light, p. 652; Match Box, p. 765; Pendant, p. 870; Paper Weight, p. 981; Enameling, p. 1097.
Needlework, Costumes for Folk Dances, Hyde: Harvest Costume, p. 62; Indian Costume, p. 164; English Peasant Costume, p. 272; German Maiden's Costume, p. 389; Colonial Costume, p. 514; Swedish Costume, p. 645; Highland Costume, p. 758; Daisy Costume, p. 864; Costume of an Irish Bard, p. 974; Spanish Costume, p. 1090.
Weaving, Steiger: Table Mat, p. 65; Two-strand Rug, p. 162; Indian Blanket and Headdress, p. 270; Doll's Muff and Tippet, p. 387; Large Bath Rug, p. 512; Doll's Hood and Toboggan, p. 642; Marble Bag, p. 755; Boy's Muffler, p. 757; Hand Bag, p. 861; Dicky or Protector, p. 863; Doll's Tam o'Shanter Cap, p. 972; Belt and Bag of Braid, p. 1086.
Woodworking, Sanford: Indian Club and Hunting Knife, p. 57; Color Wheel, Stern-paddle Boat, p. 159; Elephant Tie Holder, p. 268; Pig Paper Weight, p 384; Skees, p. 509; Monitor, p. 639; Dutch Wind Mill and Weather Vane, p. 753; Indian Club Swinger, p. 859; Sandals, p. 970; Model Yacht, p. 1083.

School Use of the Stereopticon, Jennings, p. 810.
Still Life Composition, Sargent, p. 441.
Studies in Space-Filling, I, The Square, Muzzey, p. 586.
Transparency of Goldfish, A, Bigelow, p. 803.
Two Centuries of Industrial Art in America, I, The Chair, Levy, p. 460.
Unbacked Book, The, Griswold, p. 236.
Use of Flowers in Education, Dana, p. 1052
Variations on a Line Theme, Reed, p. 1033.
Weather Records, Carret, p. 23.
White Silhouettes, Matsuki, p. 127.
Wigwams, Clark, p. 917.

MODEL AND OBJECT DRAWING

Perspective, Campbell, p. 705.

OUTLINES

Elementary School, Bailey: For October, p. 38; November, p. 138; December, p. 244; January, p. 361; February, p. 489; March, p. 619; April, p. 738; May, p. 842; June, p. 956.
High School, Freehand, Brown: For October, p. 48; November, p. 152; December, p. 260; January, p. 377; February, p. 502; March, p. 629; April, p. 747; May, p. 853; June, p. 965.
High School, Mechanical, Mathewson: For November, p. 155; December, p. 265; January, p. 381; February, p. 506; March, p. 634; April, p. 749; May, p. 855; June, p. 966.

REPRESENTATION

Teaching the Principles of Representation, Pearson, p. 568.

WORKSHOP

Metalry, Rose: Metal Watch Fob, p. 68; Pen Tray, p. 169; Scarf Pin, p. 278; Calendar Holder, p. 395; Finger Ring, p. 520; Night Light, p. 652; Match Box, p. 765; Pendant, p. 870; Paper Weight, p. 981; Enameling, p. 1097.
Needlework, Costumes for Folk Dances, Hyde: Harvest Costume, p. 62; Indian Costume, p. 164; English Peasant Costume, p. 272; German Maiden's Costume, p. 389; Colonial Costume, p. 514; Swedish Costume, p. 645; Highland Costume, p. 758; Daisy Costume, p. 864; Costume of an Irish Bard, p. 974; Spanish Costume, p. 1090.
Weaving, Steiger: Table Mat, p. 65; Two-strand Rug, p. 162; Indian Blanket and Headdress, p. 270; Doll's Muff and Tippet, p. 387; Large Bath Rug, p. 512; Doll's Hood and Toboggan, p. 642; Marble Bag, p. 755; Boy's Muffler, p. 757; Hand Bag, p. 861; Dicky or Protector, p. 863; Doll's Tam o'Shanter Cap, p. 972; Belt and Bag of Braid, p. 1086.
Woodworking, Sanford: Indian Club and Hunting Knife, p. 57; Color Wheel, Stern-paddle Boat, p. 159; Elephant Tie Holder, p. 268; Pig Paper Weight, p 384; Skees, p. 509; Monitor, p. 639; Dutch Wind Mill and Weather Vane, p. 753; Indian Club Swinger, p. 859; Sandals, p. 970; Model Yacht, p. 1083.

from beginning to end, from the kindergarten through the university, more attention is being given than formerly to the training of the senses. The medical education of to-day is widely different from that of forty years ago in this respect; and in the industrial education, which we are beginning to develop, much higher regard is being paid to the training of the senses than used to be the case.

Now, if art education were sufficiently attended to through all our schools and in all our colleges, there would gradually grow up in American society considerable numbers of persons whose artistic sense had been somewhat trained. What would be the consequence of that improvement? The consequence would be that there would go down through the subsequent generations an inherited faculty in art, an inherited sensibility to artistic impressions, and a new capacity for enjoyment. I have personally known a mature woman who had the faculty of sketching with pencil and brush, and who took the trouble to interest her children in sketching; and now I have seen the children of these children develop the same faculty. This artistic sense and this capacity for enjoyment have been possessed already by three generations, and their lives have been greatly enriched by the possession. From that one woman started this potent stream, potent in cultivating the accurate use of the senses, potent, also, in supplying great elements of enjoyment all through life. This is the first, and perhaps the most precious result that ought to flow from the adequate development of art instruction in American schools and colleges.

The artistic faculties of human nature were neglected by our Puritan ancestors. When I was a boy and young man, skill in drawing and painting, or in music, was always referred to as an accomplishment. It was not a necessary part of education. It was a frill or non-essential addition to education; and,

indeed, for a young man to be musical was to encourage the supposition that he was not going to be a sensible and profitable member of society. I recall, as characteristic of Boston public opinion only sixty or seventy years ago, a case that came under my own observation, where the parents of an excellent young lady, herself having an artistic faculty, positively refused their consent to her marriage with a promising young man, on the ground that he loved music and sang tenor. It was very much so about drawing and painting. For the descendants of the Puritans they were not creditable tastes. They were not serious working faculties.

In striving to extend and improve art instruction in Massachusetts schools we thus encounter an adverse tradition and an uninformed condition of public opinion, even among educated people. We are making some progress, but we are not accomplishing enough in either schools or colleges. The adequate development of art education must await the coming of individual teaching into the public schools. A fundamental reform needed in our schools is, of course, fewer pupils before each teacher. How hopeless the conditions were in Boston a few years ago, when the regulations put fifty-six pupils before one teacher! The new School Committee has bettered these conditions a little; but much, very much, remains to be done before the opportunities for individual instruction in our schools in any subject can be considered satisfactory. In schools to which drawing has been admitted the time allotted to the subject is often utterly inadequate. An hour or an hour and a half a week is considered by programme makers very liberal; but how inadequate is that time! Drawing, I had almost said, is as valuable and important a mode of expressing thoughts and making exact records as language itself. An explorer has just been telling me of his experiences when he got among savages whose language he

TEN GREAT PAINTINGS

III

THE MOTHER

By JAMES MacNEIL WHISTLER

IN the midst of the rival beauties of the Luxembourg, gaily over-dressed in splendid paint, or boldly nude in gleaming marble, I suddenly discovered this quiet woman, modestly clothed and in her right mind. She had evidently set her face as a flint. Her eyes looked straight forward; they would not behold a wicked person. She arrested my steps. In life, "the charm of her presence was felt by everyone who came near her." That charm has been immortalized in this picture by her immortal son. I lost desire for the company of others, that morning, and stood before the canvas long and long, until now whenever I shut my eyes, I can see its subdued grays, its lustrous black, its pale cream and rose, and feel the soothing harmony of its composition, like a full, deep, soft chord of organ music flooding all the place with peace.

This is the "arrangement in gray and black," that the hanging committee of the Royal Academy rejected in 1872 until Sir William Boxhall forced its acceptance on threat of resignation. This is Mr. Whistler's "beautiful pattern of color and of line," of which he wrote to Fantin, "To me it is interesting as a picture of my mother, but what can or ought the public to care about the identity of the subject?"

The public never has been greatly interested in mere arrangements of color and of line, and perhaps never will be. The men and women who are sensitive to rhythmic measures will always rejoice in the harmonic relations within this frame, in the rhyming verticals and horizontals, in the orderly scale of five low values, in the subtle harmony of analogous tones, in the perfect balance of diverse attractions, in the unassuming

THE MOTHER

by

JAMES MacNEIL WHISTLER

As the sun when it ariseth in the high places of God, so is the beauty of a good wife in the ordering of her house. As the clear light is upon the holy candlestick, so is the beauty of her face in ripe age.

Ecclesiasticus.

but absolute supremacy of the face over everything else; but the mass of men and women who constitute the public, will always be interested in this picture primarily because of the subject itself, never suspecting that in these very harmonic relations, to which the artist gave lifelong study, lies the supreme charm of the picture. They are as potent as the drawing and modeling of the face itself in producing the impression which this masterpiece gives, of refinement, dignity, and repose, of perfectly embodied righteous Motherhood.

This is a picture of Whistler's mother, of the woman who bore him in pain, who nursed him in sickness, who prized his first crude drawings, who taught him his Bible, and brought him up to hate insincerity and sham. She often feared her boy was "not keeping to the straight and narrow way," she never approved of his painting on Sunday, but nevertheless she stood by "Jemmie" through evil report and good report, and won from him the admiration of his passionate but locked-up heart. The haughty, insolent, sharp-tongued author of The Gentle Art of Making Enemies was always "considerate and kind above all to his mother." He escorted her to church on Sunday, called her "Mummy" (his baby name for her) to the end of his days, and hung her picture in his bedroom, where he could see it last at night and first in the morning. When the dealer, Mrs. Noseda, with whom he was forced to place it to raise money during his "hard times," offered it for sale for a hundred pounds, Whistler gave her such an abusive scolding that she became ill! When at last the picture was purchased by the French Government for the Luxembourg, he said, "Of all my pictures I would prefer for The Mother so solemn a consecration."

What a life this Mother had had! When in 1842 her husband was called to Russia to build that famous railroad, drawn by the Emperor as everybody knows, straight on the map from

city to city, she stayed behind until the children should be a little older. A year later with her four children she made the long journey to join her husband in Europe. One of the precious boys sickened and died on the way and the little body was left at Cronstadt. With what tears and smiles man and wife must have met! For her husband she made that "Little American Home" at Galernaya. In 1848 she was in England with her children. In 1849 she was in Russia again, but without the children. Then her husband died. The Emperor started her on the lonely journey to England, in his own royal barge! But what cared she for the honor with her good man dead in his service? With an income reduced from $12,000 a year to $1,500, she returned to the United States to educate the boys, and make a home for them at Pomfret, Connecticut. Then "Jemmie" went to West Point, to Paris, to England; and to England she went again, there to share his long struggle for recognition and success.

When her son asked her to sit for this portrait, how surprised she was! How she blushed and refused! How happy she was within, and how hesitant without! How embarrassed when at last she consented, just to please her boy! Can you not see the little drama enacting again? Only her best black dress would be equal to such an occasion; only her best lace cap, only her best lace handkerchief. Then she let her foolish boy place the chair where he pleased, and she took her seat before him. The tired feet, that had traveled over half the world with him, were placed decently together on the low footstool; the old hands, worn with a life of hard work, were folded in the lap, half hidden in the handkerchief. She thought they were not beautiful any more, like the hands of the fine ladies whom he had been painting of late. The shoulders, bent with the burden of life, were rested against the back of the stiff chair. What use had she,

Scotch by birth and Puritan by training, for the luxurious ease of a modern rocker!

There she sits, alone in her clean, orderly room. There is no husband now for whose return to prepare; there are no children now whose toys must be picked up, whose twisted clothing must be straightened out before the morrow. The house is still. On the wall are only pictures, symbols of her memories; behind her pictures known only to herself,—we judge of their presence by the corner of a frame; by her side the picture of the present Chelsea, her English home, which we can make out but dimly; before her the dark curtain, which hides the future from her eyes as well as ours.

But what a dear old face! Refined, strong, sensitive, "with an intense pathos of significance, and tender depth of expression," as Swinburne said, the record of a long, brave life of loyal devotion to duty, of self-forgetful service of God and man.

There she sits, all alone, waiting; her eyes beholding the land that is afar off. Of the old school in manner, a little old-fashioned in dress, a little troubled by the laxity of her son's ways, a little embarrassed by the prominence into which he has forced her, but with the eye of faith undimmed, and the native force of her will unabated, that is Whistler's Mother. I gaze at her face until I know what was in Walt Whitman's heart when he wrote,

> "Young women are beautiful,
> But old women are more beautiful."

I look at her until my heart warms. Old memories come creeping back to me. I must have seen that face somewhere; I must have known that woman. Suddenly my throat tightens, my eyes swim with tears. Ah! that is the portrait of *my* Mother, too; God bless her.

HENRY TURNER BAILEY
North Scituate, Massachusetts

THE BALANCED AQUARIUM

WE commenced housekeeping for fish in a small cylindrical glass jar which held about two gallons of water. It was furnished with a white sand carpet about two inches thick and also two thrifty plants of Cabomba, the stems of which were stuck into the sand.

After furnishing the house, we introduced the occupants,—four small goldfish and some Japanese snails. The snails were expected to make themselves useful by keeping the glass clean and the floor clear of debris. The establishment was placed on the center of the dining room table where the fish flashing in and out among the green plants gave a fine decorative effect. They were fed with fine scrapings of raw beef which they devoured eagerly. They would have liked the yolk of a hard-boiled egg crumbled fine just as well if they had been accustomed to it, and they would have thriven on boiled rice even, though they seemed to enjoy it less. One article of diet every day in the year with what they get from the plants seems to satisfy all their cravings—and even that should be given sparingly.

We soon discovered that the snails were not as good housekeepers as one could wish and we decided that it was necessary to aid them in keeping the floor clean by siphoning off the water just over the sand, removing at the same time any offensive particles which had collected there. The jar was then refilled with water of the same temperature.

One morning we found, to our surprise, that the plants were all floating on the top of the water. We stuck them in the sand only to find them floating again the next morning. This happened repeatedly until the plants became water-soaked, a light sickly green, and spindling. Then the water took on a slimy appearance and gave out a disagreeable odor. The decorative effect was spoiled, but notwithstanding all this, the fish swam serenely through the dark water and the snails crawled slowly up and down the glass as before.

About this time, concluding that we knew very little about aquariums and water plants, we decided to make a study of them, and consulted authorities and books as to the proper manner of caring for a balanced aquarium.

As a result a new start was made. We chose fresh cuttings of the water plants and grouped them in bunches of threes or fours, wrapping their stems in lead-foil in such a manner that it made a tiny receptacle for the roots, and also acted as a weight to hold the plants in the sand. The improvised pots were planted in the sand and the renovated establishment was moved near a west window which happened to be on the alley and partially shaded, so that it had from one-half to one hour's direct sunshine, according to the season.

Now we found we had a balance, that is, we had found a location which gave just the right amount of sunshine, for the plants grew all winter, throwing off oxygen and keeping the water sweet and clear for the fishes to breathe. We occasionally found a branch floating on the top of the water but this occurred when the fish had been allowed to become hungry. We wondered whether the fish pulled them out of the pots by incessant nibblings or whether the snails cut their stems in their efforts to make a square meal, and finally decided that both were guilty.

One day we found something had been going on inside our establishment which we had not suspected. We counted sixteen tiny snails on the sides of the glass. They were the exact image of the mother, about the size of a small French pea. The shells showed a beautiful minute spiral and were very transparent and delicate. The tiny things crawled up and down the glass for a few days and then gradually disappeared. We concluded that one reason why snails are such desirable occupants of an aquarium is that they are very prolific and furnish live food for the fish.

I have recently heard of a small aquarium in which the snails flourished and sixty grew in a month to be half as large as their parents. In this case the tables were turned with a vengeance, for all but one of the fish died.

The next fall we furnished the same little aquarium with plants, their roots safely wrapped in lead-foil, and placed it again near the west window. This time we had for occupants a pair of paradise fish. In an ordinary light they were just little brown fish with elongated fins and tails, but in a ray of sunshine, especially during the spawning season, they showed a most beautiful color combination of blue, green, and orange. Their sides were dark orange barred with blue-green, edged with violet. The male was more gayly dressed than his mate and wore on the edge of his gill-rakers what looked like a band of topaz below a rosette of blue velvet.

They were friendly little creatures, always ready to rise to my finger when I held it over the water, but very alert, and so fierce that nothing but the slow, peaceful snail could live with them.

Although we kept the pair of these fish three seasons and they entertained us in various ways, they refused each season to produce a family for our benefit. One of the most thrilling incidents in their career occurred about a year ago and is called by the children "The Cat Story." Here it is.

We had recently added to our family an Angora cat of mature years. A small aquarium containing a paradise fish about three inches long stood on a sewing table by the window. Kitty loved to be in the sun, and often jumped on the table to sleep in the sunlight, before the aquarium was placed there. Of course but one result was expected, that some day the fish would form a dainty tidbit for kitty puss. The other day when I came into the room I found kitty with her head over the edge of the glass and stopped to watch proceedings. The cat was

drinking and the fish was swimming around in the water directly under her tongue and making fierce darts at it. The tiny thing made such a fierce dart that the cat threw up her head and the fish gave a mighty leap which brought it, body, tail and all above

A well balanced aquarium. When perfect balance is secured the water will remain clear and pure throughout the school year.

the water into the cat's face. Kitty was alarmed, and turned tail and fled. The fish had mistaken the cat's tongue, which is unusually red, for its daily meal of raw beef which it had not received that morning.

A large cylindrical jar holding five gallons of water was a great addition to our equipment this winter for it enabled us

to increase the number of aquatic plants and keep on with the goldfish.

Parrot feather (Myriophyllum), water thyme (Anacharis), fanwort (Cabomba), and Ludwigia, all native to our waters, were planted in groups, leaving large open spaces. All over the top the Salvinia natans spread its carpet of tiny green leaves.

By some mischance this aquarium also landed on the family sewing table, which stood in a bay window, with a south and west exposure. How the plants rejoiced in the sunshine throughout the cold winter. The Salvinia especially spread itself so rapidly that it was a common thing to remove half of it and wonder in a day or two if any had been taken away. In spite of the inconvenience they occasioned, I must confess that I enjoyed the plants and the fine beautiful goldfish that flashed in and out among them as I sat sewing. These fish were very handsome specimens from four to six inches long. We allowed one fish of this size to each gallon which the aquarium held.

The light of the south window in April became too strong for the plants. The leaves of the Salvinia natans grew smaller and smaller and turned brown and the sides of the glass were covered with tiny green plants called algae. The snails live largely on this plant, and they must have had a feast. We never missed what they ate. The water was all drawn off, the sides of the glass scrubbed free from algae,* the plants trimmed, reset, and covered temporarily with several thicknesses of newspaper lest they be disturbed while the jar was refilled with water of the same temperature as that drawn off. In two weeks the sides of the glass were green with algae again.

Then a coil of copper wire was suspended in the water with no appreciable effect on the algae; incidentally, a hair snake, which the children had captured on one of their walks, caught its head in

*Use a little common salt sprinkled on the cloth with which the glass is cleaned.

it and died. Copper sulphate in the proportion used for clearing city reservoirs of algae, that is, one part copper sulphate to five million parts water, was introduced into the aquarium to see if this was practicable both in an aquarium and on a large scale in ponds. The fish acted tired and breathless, came to the top repeatedly for air, but survived the treatment. The water cleared, the algae turned black and were precipitated to the bottom. The water gave out a foul odor and we called the experiment as to aquariums a failure. The algae commenced to develop again in a few days and there was nothing to do but change the light.

You have doubtless arrived at the secret of making a balanced aquarium balance. It is entirely a matter of light. With too little light the plants refuse to grow and do not give off oxygen to keep the water sweet. With too much light the algae grow so much faster than anything else that the water is filled with them, the plants are choked by them, and while this is not detrimental to the fish, it ruins the aquarium as a thing of beauty.

We have had many plants besides those I have spoken of since we began our experiments. One of the most interesting was the pond lily. This does not, like the Cabomba and Anacharis, draw all of its nourishment from the water, and in its natural state is too large and coarse for our purpose. So a mass of clay was folded around the roots and the whole encased in lead-foil. It grew all winter, the pads coming to the surface one after another with great rapidity, about one-third the usual size. We hoped to have some tiny blossoms but were disappointed.

Many other aquatic plants taken from a pond and treated like the water lily will flourish through the long winter and add to the attractiveness of the aquarium. Numerous kinds of minnows and other fishes of small growth will live happily with the plants, requiring but little care.

Fish and plants are not the only interesting forms of life to be found in the water. There is the water spider, with his long, slender legs, skipping over the surface. Catch him and he will entertain you by slipping his long legs and slender body out of his skin sometime when you are not looking, leaving it whole on the surface.

The water boatman is a jolly companion, diving into the water when disturbed, and carrying, on each side, a bubble of air which looks like a silver ball. One of these boatmen was good enough to place some eggs in a beautiful geometrical pattern on the sides of one of our aquariums last spring.

Both of these lively creatures have the naughty trick of flying away, so that the aquarium has to be covered by glass to keep them. Other species of beetles, the caddis worm, and the crayfish have proven themselves interesting companions at close quarters. We never had anything more entertaining than the small terrapin that lived with us last winter.

Expeditions for specimens are full of educational value, with enough uncertainty to give plenty of spice. When one casts his net into the water of a brook or pond he never knows what he may bring to the surface.

MARTHA ROSS TITCOMB
Washington, D. C.

WEATHER RECORDS

AMONG the many ways of teaching children to observe what is going on around them, is the keeping of weather records. I have had successive classes of boys and girls whose average age is seven years. They have each kept records of the weather and I feel that the training in observation, accuracy, and ability to write down their observations has been of much value.

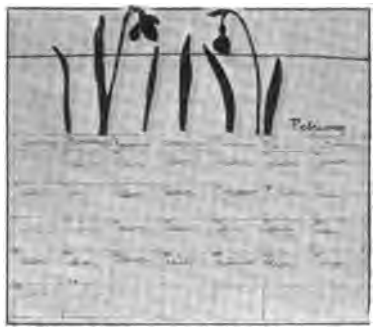
Each child has given him for each month a gray cardboard twelve inches long and ten inches high with spaces ruled on it for each day of the month. For the first two months of the school year the calendars are ruled for the children, but for the succeeding months, the children rule their own calendars, taking the measurements from dictation.

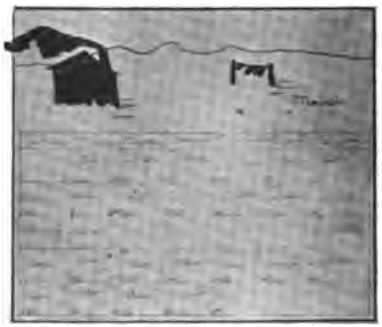
In the spaces, a record of the weather is made each day. For the first three months, the simplest record of weather conditions is sufficient—clear, cloudy, fair, rain, or snow—but later in the year—by January—the direction of the wind and the reading of the thermometer each day is added. In order to secure accurate observations of our weather vane on the house opposite, each child is given a cardboard with $\frac{N.}{W. \quad S.}$ E. on it and a movable arrow. Each one has to make his arrow on the card point in the same direction as the arrow on the weather vane. The children, in the morning, come in to school and say "Good morning," to me; then they go to the box where their calendars are kept and fill out their records for the day, each one independently. They show their records to me for approval before returning their calendars to the box. The children are in their seats again before it is time for the opening exercises to begin. Thus no school time is taken for the daily records.

The decoration for the space at the top of the calendar is made at the end of the month in one of the half-hour Manual

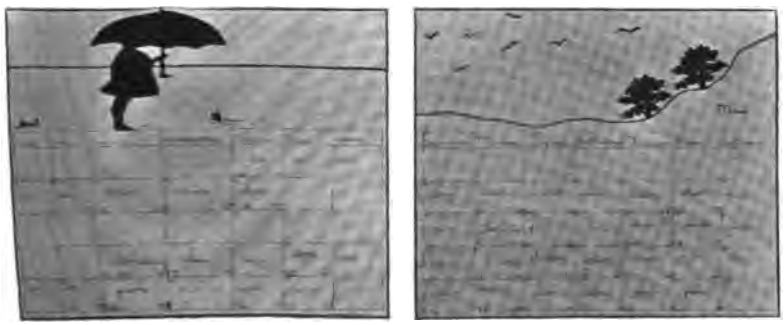
October

January


February



Training periods. This decorative band they cut from black silhouette paper. The gingko, cut-leaf maple, and white oak leaves were used for October on account of their decorative value and because we had been studying these leaves in our Science lessons. For November, Thanksgiving ducks and geese were used. December brought the "Three Wise Men" following

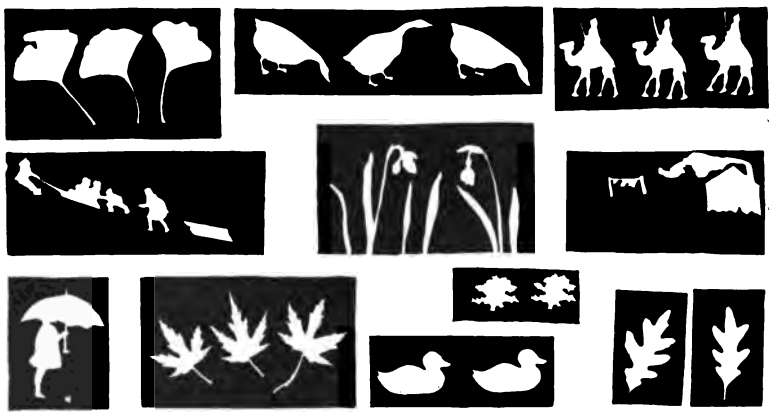


This illustration and those on the previous page show weather records made by primary children. Each child makes one for each month.

the star, January, the children coasting, and February, the snowdrop. Then came March with its windy days, April with its showers, and May with the apple trees in bloom and flocks of returning birds.

Templets are given the children around which to trace the decorative unit for all of the months except March. In this way, it is wise and profitable for the children to cut more difficult patterns than it would be possible for them to cut if they were allowed to make templets for themselves. For March, they drew their own patterns. Quite difficult patterns can easily be cut if the children are taught to turn the paper to meet the scissors while holding the scissors comparatively still.

In every case where cutting is done, the children try to save in one piece the part of the paper which is left, after the shape which they wish for the decoration has been cut out. The pieces saved are mounted and make very attractive pictures



Examples of the attractive silhouettes resulting from the utilization of the pieces of black paper from which the decorations for the weather records are made.

in themselves. There is much training also in spacing the templet well on the paper before tracing around it. All of this recalls the use of paper cutting in the Science lessons.

The calendars for May completed the weather records for our school year and I feel that the children have had no more valuable lessons than these, for power of observation, definiteness and accuracy of seeing, and power to record what they have seen.

FRANCES W. CARRET
Cambridge, Massachusetts

PEN CRAFT IN SCHOOL WORK

ARTICLE II

THE introductory article aimed to illustrate and explain the fundamentals of a good manuscript page. In the illustration a fairly formal script of a character not far removed from modern penmanship was used for the body of the writing. While such lettering is practical and desirable in school work of a very occasional type, the more ordinary, carefully written paper may be treated in practically the same way. Such regular written work is the subject of the present article, and the illustrations with the text of the first article almost tell the story.

Plate I is a page from a booklet written by a lower grammar grade pupil in a city school. It shows penmanship that holds together well as a mass and is interesting and childish. It shows that margining had been taught by a teacher who did not understand it. And finally, it shows the common misconception (derived from printed books) of the kind of initial suited to a written page.

In Plate II the writing remains the same, and the margins have been changed to agree with the mass of the writing, though of course the problem as it presented itself to the pupil was reversed, the page being given, the mass of the writing to be determined. A free initial of pen character takes the place of the commercial block letter and labored drawing within the square, and the use of capitals in the first words gives dignity to the beginning and makes the isolated title unnecessary.

Plate III is the first page, with a few slight alterations and additions, of an excellently written booklet by a girl of the eighth grade. Here the margins were well kept, and there was absolutely no attempt at decoration. The pupil was too fearful of running over into the right hand margin, and so left more than half the lines incomplete. This always gives a meagre effect. It is far better occasionally to run over than to leave much

Rosa Bonheur.

osa Bonheur was born in Bordeaux, March 16. 1822. Her father was an artist. Rosa was the eldest child; she was wild, active and detested study.

When Rosa was not in school, she was in the woods or fields. She hated books, but loved nature. She was so plump and fat that a Spanish poet who

Plate I. A rather good example of a page from a booklet in the style usually advocated.

empty space. The initial was added to give sparkle and character to the page. Ornamental line finishings were sparingly introduced to help strengthen the mass, which was still further steadied by going

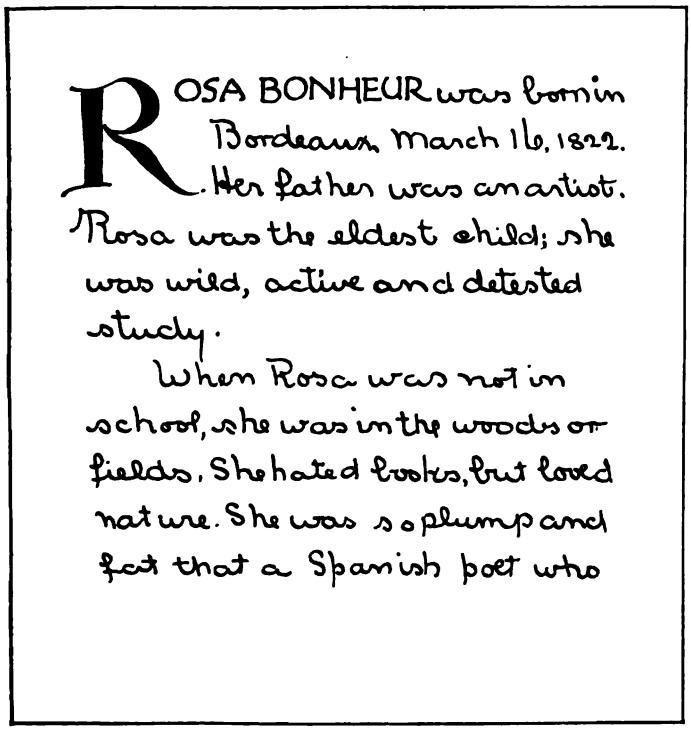

ROSA BONHEUR was born in
Bordeaux, March 16, 1822.
Her father was an artist.
Rosa was the eldest child; she
was wild, active and detested
study.
When Rosa was not in
school, she was in the woods or
fields. She hated books, but loved
nature. She was so plump and
fat that a Spanish poet who

Plate II. The same page modified in accordance with the principles of good pen craft.

over the pencil margin lines with ink. The initial, ornamental line finishings, and margin lines would be better in red than in black

In the use of line finishings, the danger is of introducing too many and thus spoiling the simplicity of the page. It will

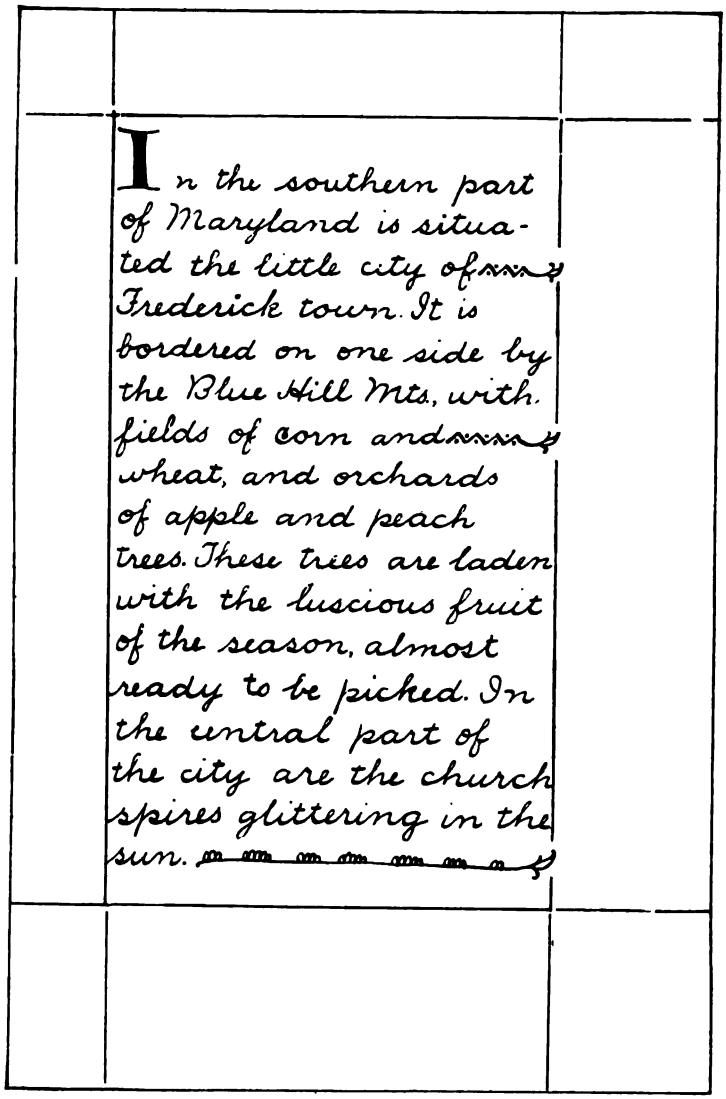

In the southern part
of Maryland is situa-
ted the little city of
Frederick town. It is
bordered on one side by
the Blue Hill Mts, with
fields of corn and
wheat, and orchards
of apple and peach
trees. These trees are laden
with the luscious fruit
of the season, almost
ready to be picked. In
the cntral part of
the city are the church
spires glittering in the
sun.

Plate III. A page from a well written booklet by an eighth grade pupil with a few slight alterations and additions.

A LETTER that serves as an initial, whether in color or in black, may be enriched by a simple flourish.

IT is sometimes effective to add a dotted outline to a simple letter.

LINE FINISHINGS of a character that lends itself to pen play are here illustrated. These and variations of them are common in old manuscripts.

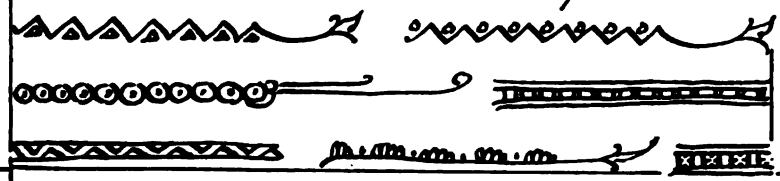


Plate V. A few of the simple types of decoration that can be applied to initials and a few traditional line finishings.

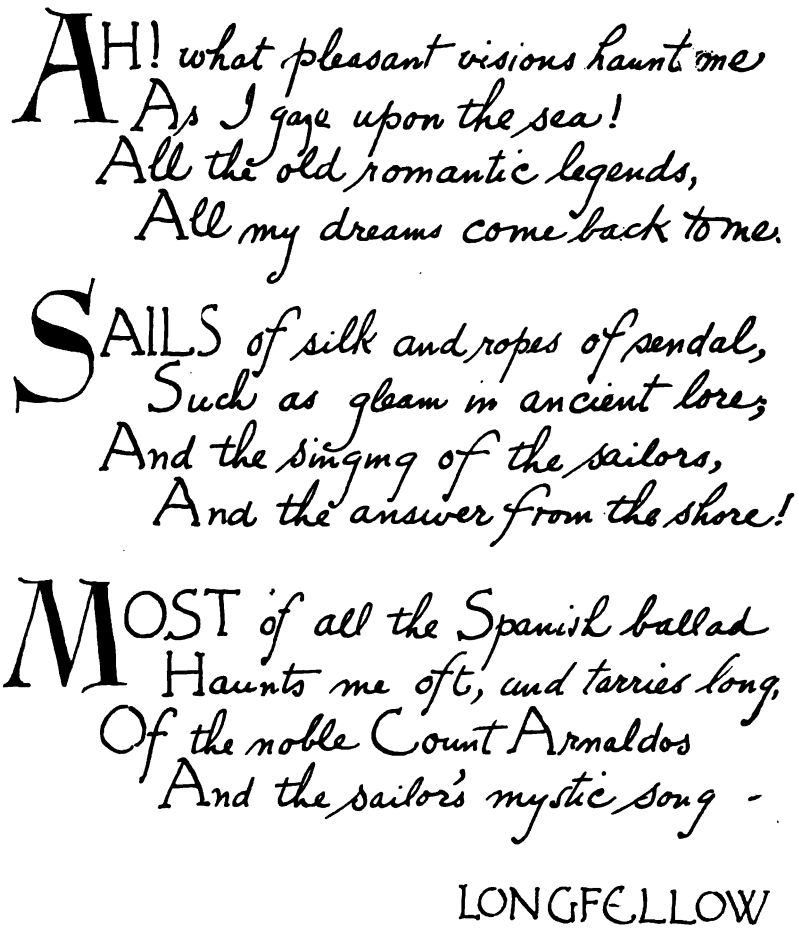

AH! what pleasant visions haunt me
As I gaze upon the sea!
All the old romantic legends,
All my dreams come back to me.
SAILS of silk and ropes of sendal,
Such as gleam in ancient lore;
And the singing of the sailors,
And the answer from the shore!
MOST of all the Spanish ballad
Haunts me oft, and tarries long,
Of the noble Count Arnaldos
And the sailor's mystic song -
LONGFELLOW

Plate IV. An illustration of a treatment of poetry with semi-formal initials and the usual cursive penmanship.

perhaps, be safest generally to allow pupils to use not over three on a page.

Plate IV suggests a treatment of poetry. The usual cursive penmanship of an adult is perhaps less easy to harmonize with the semi-formal initials and capitals, than a child's writing which is always somewhat formal per force.

In this plate the three initials and the word Longfellow in red give a pleasing effect, but the whole would not be disagreeable in black only.

Plate V explains itself. It is purposely limited to two of the simplest types of decoration that can be applied to initials and to some of the easiest of the traditional line finishings.

It is fundamental to good work to realize that beauty is not the result of decoration. Good spacing and proportion, with the proper accents of dark or of color, are all that are necessary to produce a page that is a work of art. Decoration should come as the natural enrichment of fine writing and be used sparingly in school work.

It should be remembered that decoration suitable for a written page is of a kind that can itself be produced as easily as the forms of the letters and with the same rapidity. It should have the same character as writing. Those interested to look into the matter should, if possible, study original manuscripts in the Museums, or reproductions from such. Chapters XI, XII, and XIII, in Edward Johnston's Book form a valuable treatise on illumination. Percy Smith's plates* give some good examples of decorated initials and line finishings. But right practice and application of even the few types given in Plate V will be a step in the direction of good pen craft.

JAMES HALL
Ethical Culture School
New York

*Writing and Lettering, Percy Smith: Charles Scribner's Sons.

MULTICOPY IN TONES

ESPECIALLY in the treatment of design, the drawing supervisor often feels the need of dark and light illustrations for her outlines. All of us, doubtless, have used the hektograph or some multicopy device for line sketches, but possibly some have not tried to secure results in surface tinting by this humble device.

The experiments described in these notes were tried on a commercial multicopy pad of a white composition. There seems no reason that results should not be similar on an ordinary hektograph. Of course, the freer the surface is from bubbles, the more even the tone secured. On either surface, the negative preparation would be similar.

For the negative select a sheet of hard-surfaced paper. The average business letter head (about a 20-lb. Bond) is a good weight to use. Make your drawing in pencil. Do not erase. Make corrections if needed, but leave errors in pencil. When the drawing is satisfactory, line in with a clear, strong line if an exact design. Use a rather coarse, clean pen.

The ink used should be a good hektograph fluid, preferably black. I think much of our prejudice against the hektograph comes from our memory of the green and purple inks supposed to be necessary. Even the black prints toward blue, but is more pleasing. Be very sure your pen is clean; a new one is best. When the drawing is heavily lined in, (with either a writing or mechanical drawing pen), you are ready for the addition of dark and light tones. It is best to have a number of rather small brushes. Use one for full strength. Never put it in water except to clean it when all through. The others, used in the halftone and tints, may be used much as you would in India ink washes. But for full strength washes it is best to begin with a perfectly dry brush.

Put in your full tone washes in the solid black of the ink. Brush it on smoothly. Puddles will cause blisters through

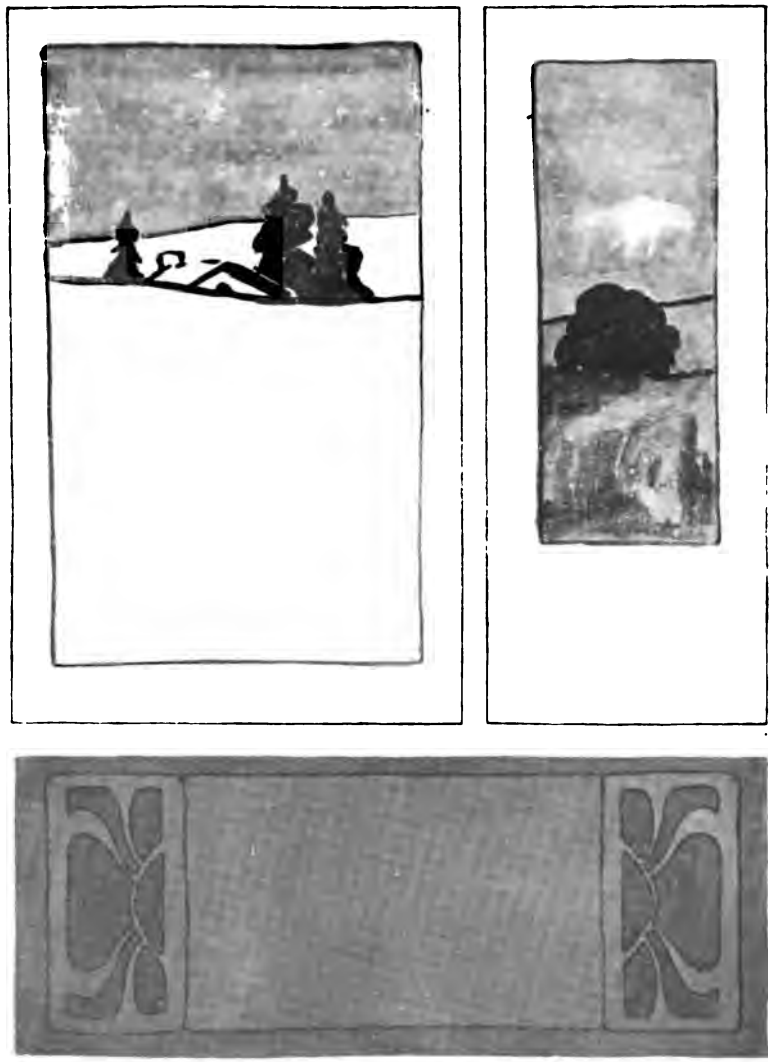
over soaking. You may work up to your outlines which will be softened by the wash. A drop or two of water to a brushful of ink, weakens it greatly. By one sheet of experimenting you can determine the amount necessary for your own pad and ink strength.

Let your negative dry thoroughly. It is not well to let copy stand any length of time, however. The paper will soon show blurring out from outlines in such a case. Have all material ready to begin printing before you apply negative to pad. Count out your sheets, fold over the corner of the bunch. This folded over corner stands up from pad and by it the sheets can be quickly lifted. We have been able to take sixty copies from one clear negative. Ordinarily about forty is the amount chosen. Having everything ready, you will be able to give your attention to timing your "exposure."

Our pad*, when not in use, is covered with a glycerine soaked cloth. Removing this, the surface is lightly wiped with a damp sponge, then dried with a newspaper spread flat with a rubber evener. With this evener, the surface of the pad is smoothed from right to left and back to front. The newspaper is removed, then flush in one corner apply your negative and smooth it to surface. For two reasons this position is best. You can accurately register your printed sheets, and if used in alternate corners, the pad does not wear out in center. Over the exposed surface lay pieces of clean newspaper, which not only protect the surface from dust, lint, and over drying, but make it much easier to remove prints by keeping edges up off surface.

In about two minutes remove the negative, and print as rapidly as you possibly can at first. Work more slowly as the copy weakens. A second application of the negative never proves very successful, as the lines appear slightly blurred. We

*Kalamazoo Multicopy Pad.



Examples of reproductions involving flat tones, made with the multicopy pad.

have better success, when the copy grows weak, in sponging the paper lightly and quickly before the print is taken. Many more copies can be so taken.

Always leave your pad entirely clean. Dry as at beginning with newspaper, cover with glycerine soaked cloth; put on tin cover, and put away upside down.

Failure and discouragement with multicopy devices is due chiefly to the selection of the paper on which the prints are taken. Not the ink, nor the drawing, nor the pad is at fault, so much as the over absorbent quality of the paper. It weakens the copy rapidly, dries out the pad and is most unsatisfactory. Many of the "hektograph" papers, so advertised, are of this nature.

Choose, rather, a hard-surfaced, light weight paper. The weight used in taking carbon copies on a typewriter is very satisfactory. School water color paper will take good copies but not as many.

The illustrations given are taken on these two varieties of paper. One pleasant thing about the multicopy pad is its fascination to most pupils. It is usually easy to secure volunteers to take copies. Careful high school pupils can also prepare plates for you.

CHARLOTTE REED
Marshalltown
Iowa

ANNOTATED OUTLINES

OCTOBER

IN the June number the course to be followed by The School Arts Book during this school year was given in the form of a chart, and the work for September was defined and illustrated. It consisted of lessons in color and in drawing from plants. The work for October is the logical outcome of that with which we began.

PRIMARY

Aim: To lead children to observe the forms and colors of ripened fruit and leaves, and to record what they observe in an orderly and pleasing fashion.

FIRST YEAR. 1. Draw in color any plant or spray having bright berries.

Give special attention to the direction and character of growth and to the colors of stems, leaves, and berries. Help the children to clip their sheets to the most pleasing size, neither too large nor too small for the drawing.

2. Cut freehand from colored paper the shapes of leaves.

Select simple leaves with entire margins. Let the children select paper having as nearly as possible the general color of the leaf. The leaf may be placed upon the paper, carefully traced, and then cut. From the piece left cut out a frame. Mount the leaf and its frame on a piece of white paper. See Fig. 1.* By means of this and similar exercises lead the children to become familiar with such terms as round, square, straight, curved, vertical, horizontal, oblique.

SECOND YEAR. (U)† 1. Draw in color any spray with berries or other seed-packs.

Give special attention to the branching, the angle which one stem makes with another, and the relative lengths of parts. Help the children to clip

*A helpful article on this kind of handwork will be found in The School Arts Book, September 1908, by Miss Frances W. Carret.

†This letter indicates lessons most likely to be suitable for the two divisions of ungraded schools.

their sheets to the most pleasing size and shape. The shape of the sheet should correspond with the shape of the drawing, in relative width and height. Teach right, acute, obtuse angle, diameter, diagonal.

2. Cut freehand from colored paper the shapes of leaves.

In this grade have the children color the paper for themselves. Select a pretty autumn leaf. Study its colors. Decide upon two or three colors which flooded together would imitate the coloring. Take a sheet of white paper, go over it with a wash of water, and while it is wet touch into it the selected colors and make them run together as they do in the leaf. Mix the colors used all together thoroughly to make one color and with this color lay a flat wash on another sheet. When the first paper is dry, select the portion which exhibits the coloring most like that of the leaf, place the leaf upon it, trace, cut out, and mount on a sheet of white paper. From the other colored paper cut out a frame of appropriate size, and mount that upon the white paper, to secure a result something like that shown in Figure II. Use the ruler and make the frame 1-2 inch wide.

THIRD YEAR. 1. Draw in color any spray or tree.

A spray with colored leaves, or a spray with seed-packs, or a tree, exhibiting tints and shades of color is recommended for study. Give special attention to the relative sizes of masses, as well as to their tones of color. Help the children to trim their sheets to the most pleasing size and shape, and in such a manner that the drawing will appear happily placed within the oblong.

2. Cut a bilateral figure from colored paper, and mount it within a frame to show one color with a tint and a shade.

The bilateral figure may be suggested by the spray or the tree just drawn. Figure III shows a typical result. The aim of the exercise is to secure an orderly arrangement in form and color. The method will depend on local conditions. One good way is to decide upon the size and get out the stock, three sheets of white paper; then to color these sheets, one a selected color, one a tint of it, and the third a shade of it. Fold the sheet of full color, sketch one-half the leaf or tree, and cut the figure. Make the frame from the shade, and the background from the tint. In this work teach the children to use intelligently such terms as parallel, perpendicular, oblong, etc., and to measure to one quarter inch. Use the sheet as the basis for a language paper.

First, second, and third year paper cutting, in connection with the study of color.

GRAMMAR

Aim: To lead children to think about beauty as secured through orderly arrangement, rhythmic division of space, consistent coloring, and good lettering.

In September the emphasis was placed on beauty in the plant itself, its grace of line, its charm of detail, its purity and variety in color. This month, emphasis is laid upon producing similar beauties upon paper, inside the four lines of a rectangle, and within the limits of the pupil's powers. The plant was perfectly balanced on its stem; the spray must be perfectly balanced within its enclosing form. The plant exhibited fine rhythms of measure in its stems and in the areas of its leaves and fruit masses; the drawing must exhibit the same in all its parts. The plant was beautiful in color as it grew in the open; the panel suggested by it must be beautiful in color as seen upon its mount in the schoolroom. The plant was the creation of the infinite Artist; the panel, suggested by it, must be no less the creation of the child artist.

FOURTH YEAR. (U) 1. Make a decorative panel in one color in silhouette.

Figure IV is a good example. The veins of the leaves need not have been shown. The sheet may be made from some study of a spray drawn in September, or an entirely new subject may be selected. Give special attention to securing a color suggestive of the plant as a whole, but pleasing in its relation to the paper used, whatever that may be. Remember that in a decorative arrangement the spaces between the leaves, the areas of the background, are quite as important, even more important, than the parts of the plant.*

2. Practice freehand lettering; capitals, in pencil.

The imitation of type letters is no longer to be encouraged in school work. It eats up too much precious time, and yields too poor results. The better

*A helpful article on Decorative Arrangement is to be found in The School Arts Book for October 1905. This and other valuable suggestions are now reprinted in Nature Drawing, published by The Davis Press.

DECORATIVE COLORING

To make clear the different colorings suggested in the Outline, five examples are here reproduced side by side for comparison.

Upon this page the color advocated for Grade IV is shown, a single wash of one arbitrary color on a white ground. The color of the original drawing was suggested by the withering foliage of autumn, but modified here to gray for convenience in printing.

Upon the opposite page the first sheet of grapes shows the exact matching of colors having the complementary relations, on a white ground, as advocated for Grade V. The blue was dulled with gray to match Nature's color of the grapes, and the orange was dulled with gray to match her color of the leaves in a general way; but the precise hue in each case is tuned to the complementary interval. The margin line repeats the gray.

The apple (in the upper corner) shows coloring in values tested by the neutral scale. This is a good problem for Grade VI. The background is light, the fruit in middle value, and the leaves dark in the same scale, namely, orange, without reference to the natural color, but following Nature's hint in values.

The apple (in the lower corner) presents a scale of hues between yellow and orange-red, suggestive of the original colors of the spray, but not imitating them. The hues are toned with analogous colors, i. e., yellows toned with red, reds toned with yellow. This gives purity and brilliancy of effect. This is work for Grade VII.

The grapes (in the lower corner) show five tones from a scale of intensities made by mixing violet and yellow. Grade VIII. In the color of the grapes the violet is dominant; in the color of the leaves the yellow is dominant; but both violet and yellow were used in producing all the tones. Grapes may never have had such a color, leaves may never have had such a color; a scheme of this sort need not even suggest the natural coloring, although it does in this case. In each panel the aim is a beautiful harmony of color. Coloring solely for a desired color effect is decorative coloring.

The fourth grade drawing is by Ethel Lane, Braintree, Mass.; the fifth grade by Jennie Beggs, Springfield, Mass.; the sixth grade by Edith Dahlgren, Bristol, Conn.; the seventh grade by Elsie G. Gill, Middletown, Conn.; the eighth grade by Fred H. Hill, Concord, N. H.

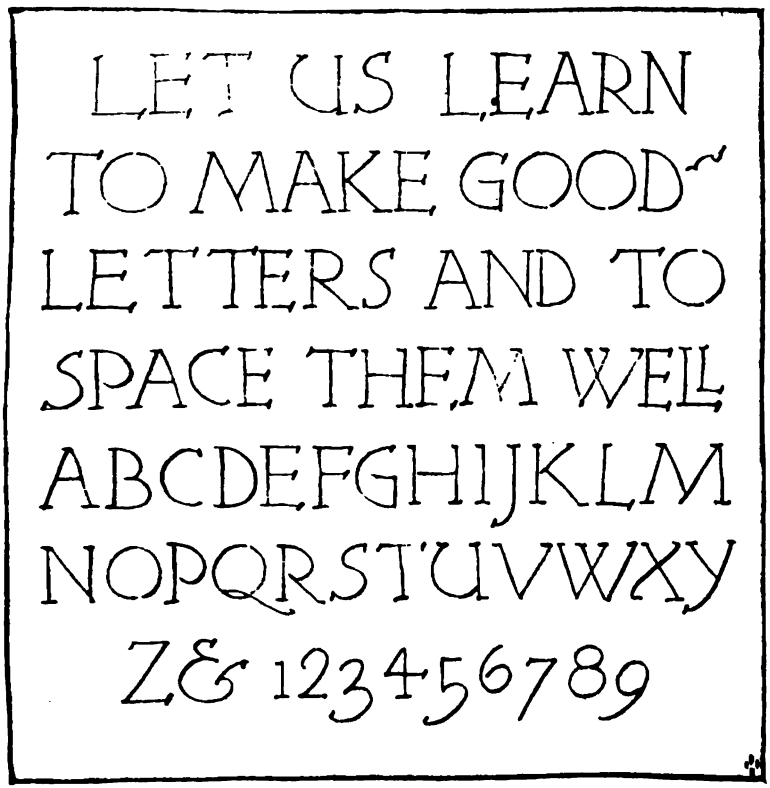
V

VI

VII

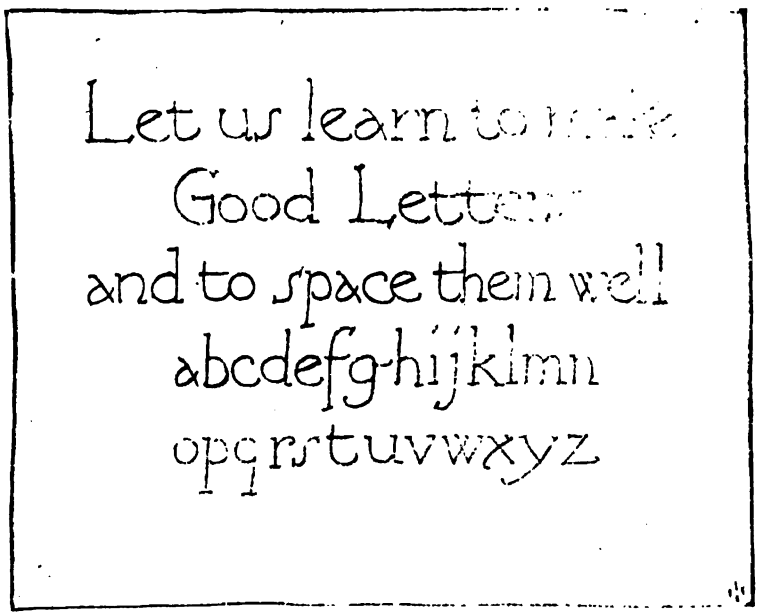
VIII

way is to adopt a simple frankly freehand alphabet such as can be made directly with a pencil, without retouching, like that shown on this page, by Mr. James



Hall.* Select some brief quotation and make a card containing it, well shaped, and well lettered in caps.

*Mr. Hall has kindly furnished the three plates of lettering which appear herewith; alphabets in pencil, in brush, and in pen.



FIFTH YEAR. 1. **Make a decorative panel in complementary colors on a neutral ground.**

Figure V (color plate) is a good example. Use one of the September studies as a basis, or make a new one. The plant chosen may not show the perfect complementary relation, but the panel should. Experiment with the two dominant colors until the right hues are discovered, the two which when mixed produce neutral gray. Use these in coloring the panel. The two may be mixed to make the gray used for the margin line. This gray may be diluted and washed over the background if desired.

2. **Practice freehand lettering; capitals and lower-case letters, in pencil.**

Select a pleasing quotation and make a good arrangement of it on a card, well lettered. Copy as closely as possible the freehand alphabet reproduced

on page 44. The lettering need not be always in black. Try a colored pencil, after the first practice has been sufficient to prophesy success. Text in dark green with an initial in red, its complementary, on the manila paper, makes a pleasing combination of color.

SIXTH YEAR. (U) 1. Make a decorative panel in three tones of one color, tested by the neutral scale.

Figure VI (color plate) is a good example. Use one of the drawings from plant forms made during September as a basis or make a new study from nature. Having selected the hue to be used in middle value and having tested it to be sure that it will dry out the right tone, mix its tint in the value of light, and its shade in the value of dark, and test these. The three values may then be applied to the panel. A strong outline in black was added in the illustration, but this is not essential.

2. Practice freehand lettering; capitals, with the brush.

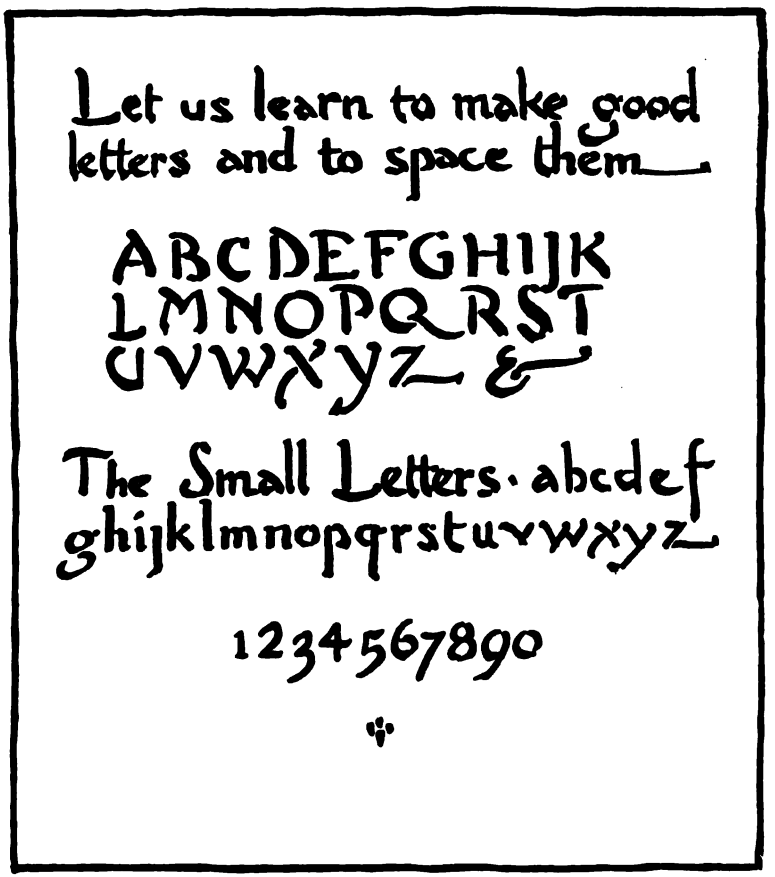
Let the result be frankly brush work, like that shown on page 46. Do not make the letters of small size at first. Practice on common signs like "Work of the Sixth Grade," "Results of One Lesson in Drawing by Sixth Grade Pupils," or any other sign or label which happens to be required. Practice first in ink. Afterwards try tinted paper with letters a shade of the same hue as the paper.

SEVENTH YEAR. 1. Make a decorative panel in several analogous tones of color.

Figure VII (color plate) is a good example. Use one of the drawings from nature already made or make a new one as a basis for the panel. Select the dominant hue for the panel. Make a scale showing the modifications of this hue warmer and cooler, not more than five hues in all. Plan the distribution of these appropriate to the design, remembering that the most brilliant hues and the strongest contrasts should be confined to the smallest areas.

2. Practice freehand lettering; capitals, with the pen.

For an example of good pen lettering for beginners see page 47. Select a motto or sentiment, appropriate to a bookmark. Cut a bookmark from colored paper, say 2 1-2 inches wide by 6 inches long, and print the sentiment upon it, well spaced, and in a deep tone of color analogous to the hue of the



paper. Use the capital letters, closely grouped into words, as shown in the illustration. Use good lettering when marking drawings or other work, with name, school, etc. "What's worth doing at all, is worth doing well."

EIGHTH YEAR. (U) 1. Make a decorative panel in several tones produced by the mixing of complements.

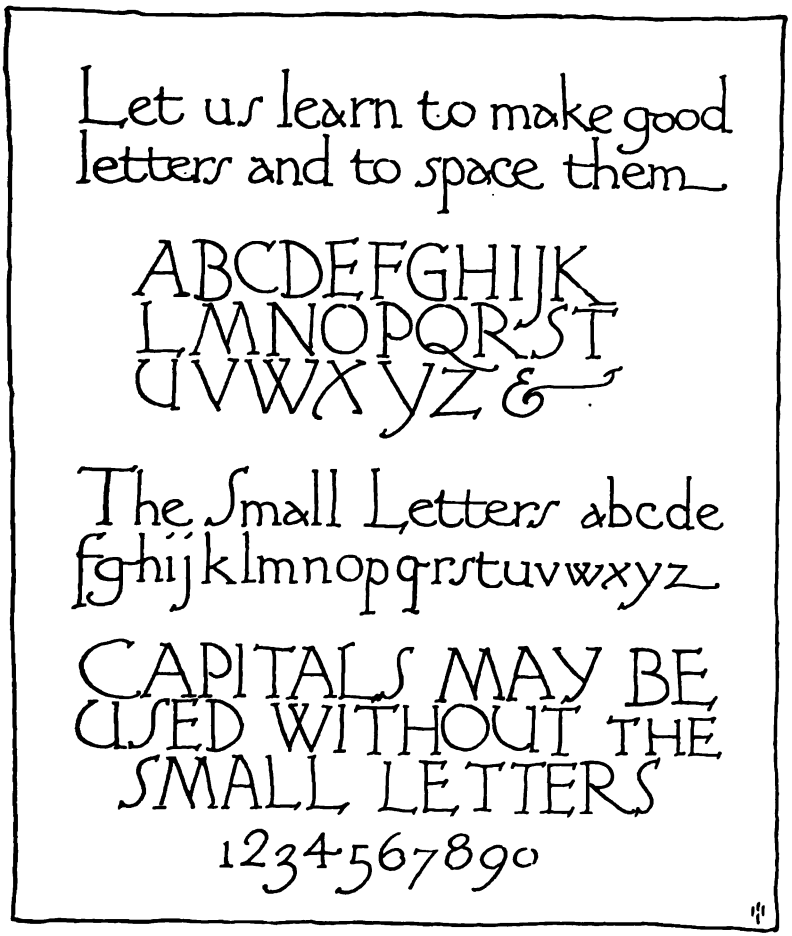


Figure VIII (color plate) is a good example. Select the pair of complementary colors best suited to expressing the character of the subject. Plan for three, four or five tones and produce a satisfactory scale by mixing them.

Apply them to the design, remembering that the tones must be distributed in such a way that the effect is predominantly warm or cool. Warm and cool tones must not appear to be striving for the mastery. The case must appear to have been settled peaceably one way or the other.

2. Practice freehand lettering; capitals and lower-case, with the pen.

After practicing the capitals and small letters until their forms are well known, render some favorite quotation in beautiful form. Give special attention to the scheme of color. A delicate, green-gray paper with the body of the text in black, and the complementary red used in the initial, outlined in black, gives a good effect. Text in green, initial in red, paper cream white, is another good combination. Text green on a cream ground, with a vermilion margin line is another pleasing arrangement. Practice good lettering constantly until a "hand" is acquired. To be able to print well and rapidly freehand is a useful accomplishment. H T. B.

HIGH SCHOOL

FREEHAND COURSE

In planning a freehand course for the high school the sequence of work and arrangement of time is an important consideration. Opinions differ regarding what is best in this.

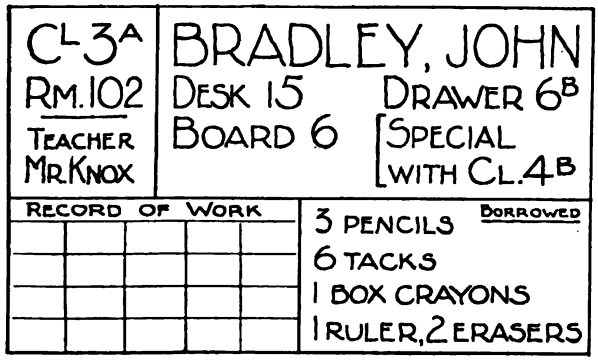
The desire of some to carry one kind of work through continuously for a school term or a school year is opposed by others who feel that the pupil's year should be broken up into sections, each devoted to a different, though related line of work.

To an artist or designer the first method would by all means be the most desirable,—I confess that, to me, it is the most alluring. But I doubt if it is the most consistent with present school methods and the capabilities of the boy or girl. I therefore suggest that the school year be divided, approximately equally, into two sections devoted respectively to Representation and to Design, the mechanical drawing being correlated with these subjects at such periods as may serve best the interests of each particular school program or local conditions.

I shall classify under Design all study and drawings of plant and flower forms where design is the motive. Under Representation will be considered the drawing from still life groups, exteriors and interiors and other subjects involving perspective, whether in outline, light and shade, or color.

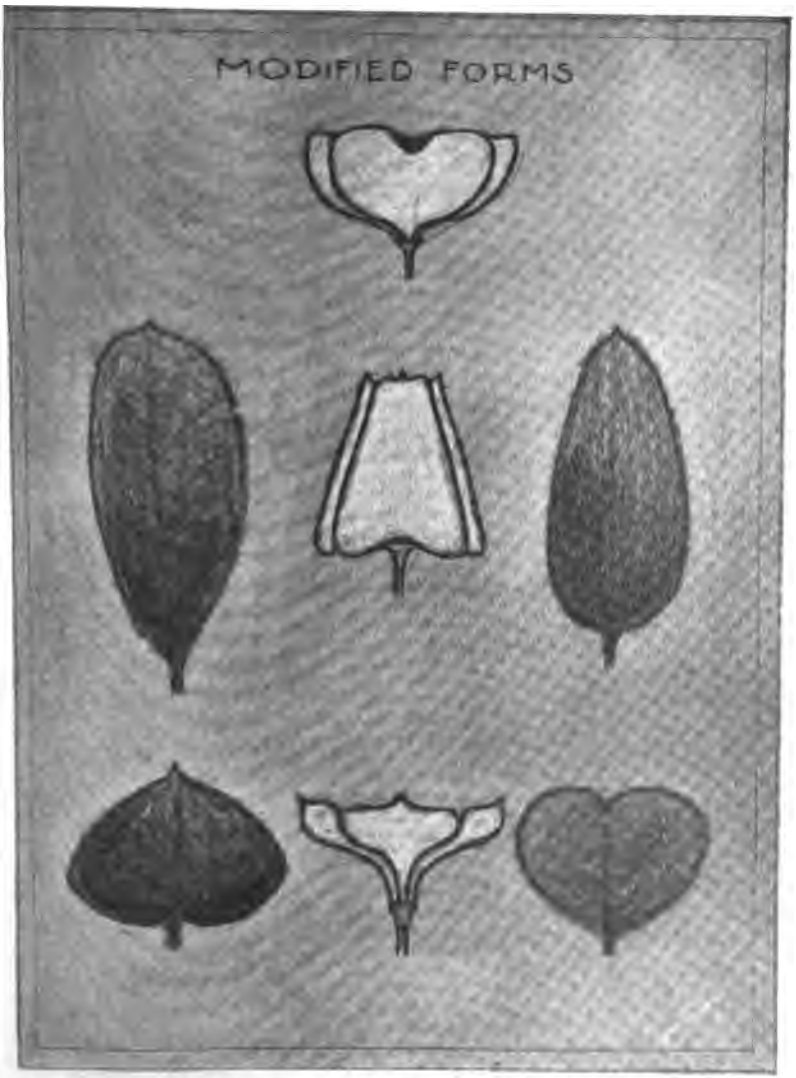
The season will guide us in a measure as to our choice of work. Let us therefore take up flower study and analysis for the fall term.

A good problem for starting the school year, before making our flower drawings, however, will be a lettered card. This card will serve a triple or



quadruple purpose. It will be an excellent drill in lettering and arrangement for the student; the collection of cards of the class will serve when completed as a roll of the class. The cards also are receipts for materials loaned by the teacher; they locate the pupils in the other parts of the school or their place in the drawing room; and lastly they give a handy and workable method of marking or grading each pupil's work. These cards should be collected by the drawing teacher and filed alphabetically in the card catalogue boxes now so familiar, the cards being furnished to the students, or cut by them to fit this size. A style of arrangement is suggested in the accompanying sketch. The lettering may follow this or be patterned after that explained in Mr. Hall's article in the April, 1909, School Arts Book. Arrangement, spacing, shape of letters and legibility are the prime necessities.

· Evening Primrose ·


MODIFIED FORMS

FLOWER ANALYSIS

Make careful studies of flowers with their stems and leaves in natural attitudes. Each flower and stalk should show clearly. Do not draw a bunch or bouquet. If available, draw some flower showing clearly the calyx, corolla, stem, leaves and, if possible, buds and forming seed-pod or fruit. Sometimes these are all on one stalk at the same time.

Accurate drawing and truthful record of facts of construction is important.

Use pencil outline. Avoid a soft pencil for accurate drawing. More talented pupils may adopt pen and ink or complete the pencil drawing by flat tones of water color or crayon. Two or three of these drawings should be made by each pupil.

Drawings of the whole spray should be followed by careful notes of details seen from different positions, the joints of stems, the shape of sepals or petals, top and side views of flower, bud or seed-pod, etc.

A study of the whole spray and details should be followed by a type lesson in conventionalization, using a type flower, bud and leaf and not the widely varied forms of the previous sheets. This may be done to good advantage by dictation from drawings on the blackboard, as shown in the following sheets.

Most simple flowers in face view are based on the circle with regularly spaced petals. In edge view they are cup, saucer or plate-shaped. Note carefully the corolla, calyx, joining to stem, arrangement of pistils and stamens.

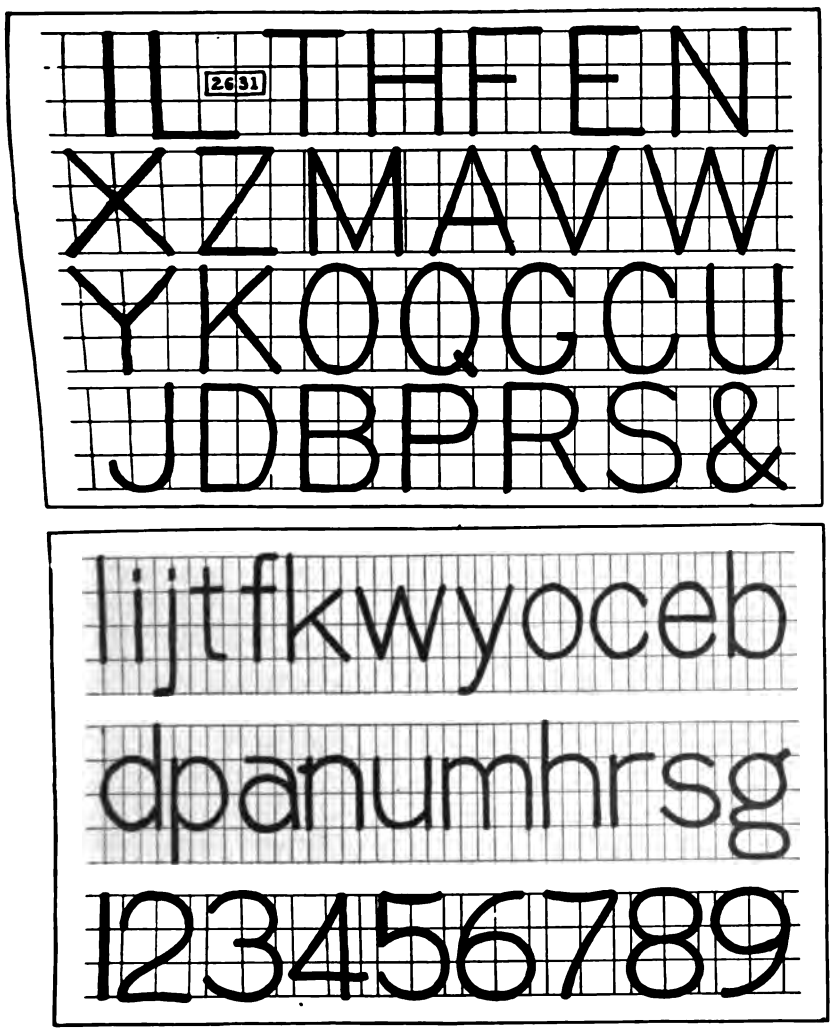
Both of these type forms should be experimented with as though they were elastic and capable of fitting snugly into several different areas.

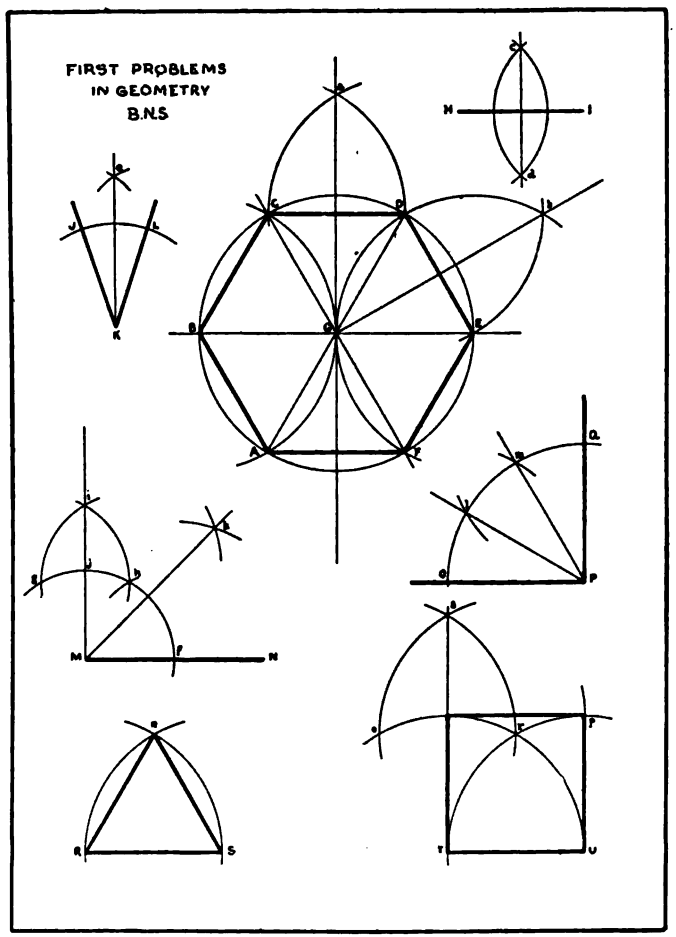
Leaves and buds are oval, fundamentally. They may be indefinitely varied, and adapted to new limits. Abundant material here exists for the month's work.

REFERENCE MATERIAL

Miss Foord's books on Plant Studies.
E. Grasset's "La Plante."
Midgeley & Lilley's Plant form and Design.
Haité's Plant Studies.
Clark, Ernest E. Handbook of Plant Forms (John Lane).
Pages in F. G. Jackson's Elementary Design.
Files in Public Libraries:
Country Life in America.
Suburban Life.
The Garden Magazine.
Some catalogues of seedsmen, to be procured for a postage stamp at most, have abundant suggestions in their plates.

Harold Haven Brown.


2631
IL THF EN
XZMAVW
YKOQGCU
JDBPRS&
lijtfkwyoceb
dpanumhrsg
123456789


FIRST PROBLEMS
IN GEOMETRY
B.N.S

MECHANICAL DIVISION

Learn a good mechanical alphabet. Continue the study of geometric figures and derive from them the geometric problems of primary importance.

The alphabets given on page 53 will serve as a standard. The lettering should be laid out with mechanical accuracy but the letters themselves, unless of very large size, would better be drawn freehand to save time.

The first problems in geometry derived from the study of geometric figures should finally be laid out in a well arranged sheet such as that shown on page 54. In the working out of these problems one of the best helps to a teacher of the right spirit is Spencer's Inventional Geometry. It will be well at the outset to decide on a size for finished sheets and to have all the sheets uniform. Mr. Mathewson recommends a working space 9 x 12 inches. Mr. Bennett recommends a sheet 11 x 15 (1-4 of an imperial sheet) to finish 14 1-2 x 10, with 8 x 12 inches as the working space within the margins.

Notes for Mechanical Drawing by Frank E. Mathewson and Problems in Mechanical Drawing by Charles A. Bennett will be found especially helpful for this work. H. T. B.

Tailpiece, Autumn, by Lawrence J. Young
Brooklyn, New York

HELPFUL REFERENCE MATERIAL

FOR OCTOBER WORK

Autumn Plant Drawing

Sargent, Book, September 1902, p. 9; Fiske, Book, September 1905, p. 9; Bailey, Book, September 1905, p. 20. Prang Text Book, V, p. 22, and VI, p. 22. Applied Arts Drawing Books, Seegmiller. Parallel Course Drawing Books, Hammock. Plant Form and Design by Midgly and Lilley. Plant Form, Clark. Decorative Plant and Flower Studies, Foord.

Color Nomenclature and Methods of Teaching

Book, October 1901, p. 6, and November 1901, p. 6; Book, March 1902, p. 30; Bailey, Book, April 1904, p. 378; Kettelle, Book, April 1904, p. 339; Parsons, Book, November 1904, p. 119. A Color Notation, Albert H. Munsell; A Theory of Pure Design, Denman W. Ross.

Color Harmonies

Bailey, Printing Art, July 1906. The most specific and comprehensive statement yet given; with references to illustrations in Printing Art. Seegmiller, Book, December 1908, p. 346. Composition in Fine Art, Kettelle, Chapter VI. A Course in Water Color, Prang Educational Company. Illustrations in Applied Arts Drawing Books, Seegmiller; Parallel Course Drawing Books, Hammock; the Prang Manuals; Color Problems, Vanderpoel.

Decorative Arrangement

Berry, Book, October 1903, p. 41; Bailey, Book, October 1905, p. 90; Prang Text Book, VII, p. 28. The Principles of Design, Batchelder, Chapter XIII. Design Packets, The Davis Press. Council Year-Book, Vol. VII, Adaptation of Pattern to Material, Haney.

THE WORKSHOP

I. AN INDIAN OUTFIT

SEPTEMBER, the month of turning leaves and quiet, soft days, is the time to get into the woods and among the ledges and play Indian, before the nut gathering and winter sports come on. With a khaki suit trimmed up a bit and a headdress of feathers one should have a war club and a hunting knife; and so here is how to make them.

INDIAN CLUB

This can be made entirely with the jackknife as a cutting tool, but a saw helps a lot in getting out the first form (Fig. 1) from a board.

As the drawing shows, you need a piece of soft pine, 3 1-2″ x 22″ x 7-8″, clear grained. Saw or whittle out the main lines, then cut the curve of the handle and round all edges and corners, finishing smooth with glass or sandpaper.

Get a few cents' worth of the smallest brass escutcheon pins and some of a larger size, and first drawing the circles, either freehand or by marking around something, drive in the small pins on the curve and one large one in the center. Now paint, stain, or oil the whole club.

The decorative feathers are slightly notched near the end of the quill, and after the club is wound and tied, the feathers are attached to the cord ends. A dash of red ink or paint on the feather tip helps out the barbaric effect.

Now you have a good club something like one the writer saw in the Field Museum in Chicago (Fig. 2).

A HUNTING KNIFE

Use the same kind of wood unless you feel you can whittle the knife from hard wood, oak, or hickory, or ash which, of course, makes it more durable. The size is as given, 1-2″ x 1″ x 11″, with lines drawn and cuts made first as in Figure 3.

Then it isn't hard to cut the notch for the forehead and round the beak above and below and shave off the blade to an edge. Almost any boy who has had drawing in school can outline the mouth, then the eye, then the other forms to be carved. Figure 5 is only an enlarged drawing of part of Figure 4 to show the cuts a little better.

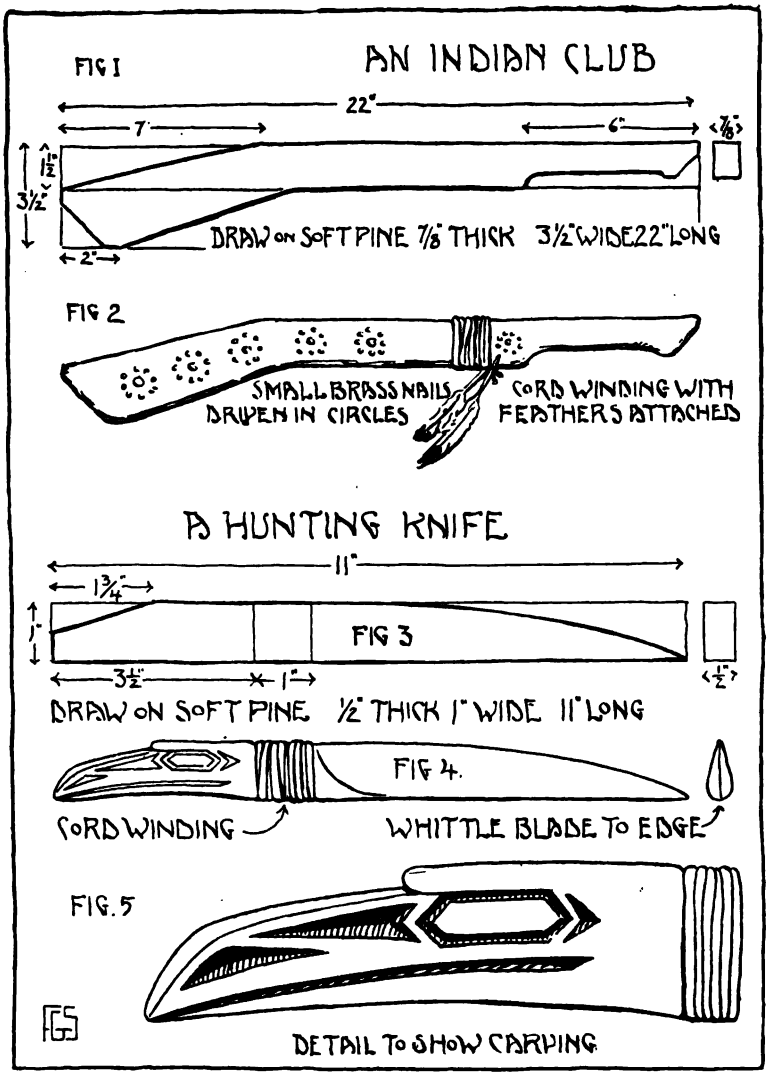


FIG I
AN INDIAN CLUB
22"
7"
6"
⅞"
1½"
3½"
2"
DRAW ON SOFT PINE ⅞ THICK 3½" WIDE 22" LONG
FIG 2
SMALL BRASS NAILS DRIVEN IN CIRCLES
CORD WINDING WITH FEATHERS ATTACHED
A HUNTING KNIFE
11"
1¾"
1"
FIG 3
3½"
1"
½"
DRAW ON SOFT PINE ½" THICK 1" WIDE 11" LONG
FIG 4.
CORD WINDING
WHITTLE BLADE TO EDGE
FIG. 5
DETAIL TO SHOW CARVING

As for this carving—well, any boy who has carved his initials can do it, but do it in such a way that the cuts show clean and meet in a line at the bottom. Hold your knife like a pencil, slanting the hand, and cut lightly at first then deeper, turning the wood to cut the other side, and so keep cutting until the cuts meet and the chip drops out.

The whole knife may be stained, then the eye colored in red and the binding finished.

FRANK G. SANFORD

Oneonta, New York

COSTUMES FOR FOLK DANCES

THE wide and increasing introduction of Folk-dancing as a feature of Physical Education, together with the dramatization of events connected with the study of English and History, has opened a new field to the Domestic Art teacher in the study and construction of costumes.

This study offers subject matter which is of vital interest to the child, in that it deals directly with a concrete situation, and the teachers of English and History will find abundant material for correlation in folklore and history of costume.

The writer does not hold that costumes are a necessity in Folk-dancing and Dramatics, but simple costumes, besides giving much pleasure to the participants, are an aid to one's imagination, and add a note of picturesqueness to the situation.

The object in the following articles is to present a few simple costumes, illustrated by pictures, each one accompanied by a chart showing the construction of the garments, and giving enough proportions to enable the child to work out the patterns for her doll, or in full size for herself. Garments of accurate fit are not the aim, but rather a knowledge of how to obtain speedy and satisfactory results, to teach the child the relation-

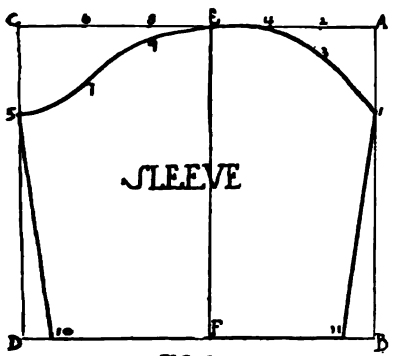


FIG. 2

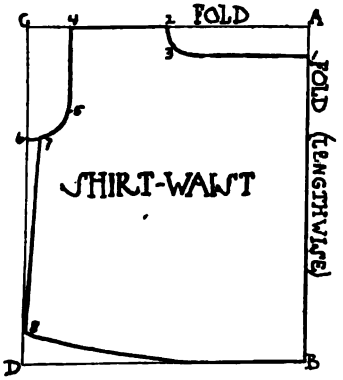


FIG 1

PLATE I

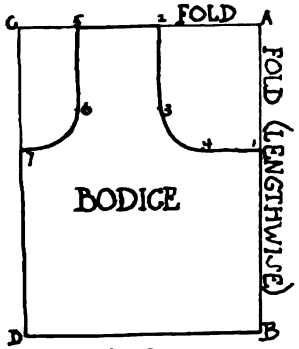


FIG 3

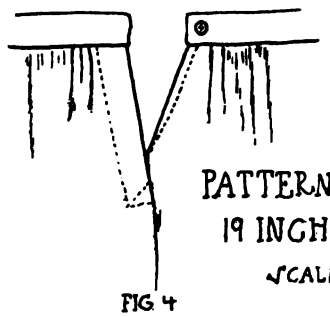


FIG 4

PATTERNS FOR 19 INCH DOLL

SCALE $\frac{1}{2}$" = 1"

ship of one part of the pattern to another, and to give a general knowledge of proportion. Practice in free pattern cutting is earnestly advised.

In planning costumes for Folk-dances or Play-festivals, where a large number are necessary, the construction of the garment must be simplified by reducing the number of seams wherever possible, in order to minimize the amount of sewing.

As to the portion of the actual work which it is possible to have the children do, the smaller articles of the costumes, such as caps, hats, kerchiefs, aprons, bodices, and any accessories can easily be made in the sewing classes; and by group work among the girls who are able to run the sewing machine, the more tedious part of the work may be quickly accomplished, particularly if a power machine is available.

An important value of the work lies in the suitability of the costume, historically and geographically, to the situation, and in the completion of the work before the interest has flagged.

I. HARVEST COSTUME

"When ended the repast, and board and bench
Vanish like thought, by many hands removed,
Up strikes the fiddle, quick upon the floor
The youths lead out the half-reluctant maids,
Bashful at first, and darning through the reels
With timid steps, till by the music cheered,
With free and airy step they bound along,
Then deftly wheel, and to their partners face,
Turning this side, now that, with varying step."

Harvest feasts and dances, which are still occasionally held in some of the northern countries of Europe, grew from the farmer's grateful sense of the work done by the reapers at a critical time.

These observances of the harvest date from the time of the Romans who worshipped and danced before Ceres, the goddess of the harvest.

One feature common to all harvest festivities, was that of the "corn-baby," or "kern-baby," made from the last sheaf of corn which was cut. This was made and dressed like a doll, in as many of the reapers' garments as could be spared, then crowned with wheat-ears, and the reapers danced and made obeisance to the "kern-baby," or "harvest-queen." It was then placed on top of the last load, and carried to the barns where the harvest supper and dances were held.

The reapers who danced at these festivities were dressed just as they had come from the fields, so in planning costumes for harvest dances, they must represent simple country costumes.

The accompanying picture shows a suitable costume, which may be easily constructed from the chart and directions. The material used for the model was a dark cotton print for the straight full skirt; a white waist, yellow bodice, and white apron. The hat in the picture is made from braided raffia.

SHIRT-WAIST PATTERN

Take sheet of paper 10″ x 12″. Fold through center, lengthwise,* then crosswise. Letter corners, as in chart. Point 1=1-2″ from A. Point 2 = 2 1-2″ from A. Point 3 = 1-2″ from 2. Draw curve from 1, through 3 to 2. Point 4 = 1 3-4″ from 2. Point 5 = 1 1-2″ from 4. Point 6 = 2″ from C. Draw curve from 4, through 5 to 6. Point 7 = 1-4″ from 6. Point 8 = 3 1-2″ from 6. Draw curve from 8 to B.

Open pattern and cut one fold from 1 to B, for opening at back. Cut material folded same as pattern. Hem back edges. Gather neck from point 3 on each side to center back and front, and bind. French-seam under arm. Hem bottom. Locate waist line in back, and tack center of tape, to tie about waist, to center back.

For pattern, twelve year size, take paper 30″ x 36″, and proceed according to directions, multiplying all measurements by 3.

SLEEVE PATTERN

Take paper 6″ x 5 1-2″. Place with short edges vertical and letter corners as in chart. E = center of line AC. F = center of line BD. Point 1 = 1 1-2″ from A. Point 2 = 1″ from A. Point 3 = 1-2″ from 2. Point 4 = 2″ from A. Draw curve from 1, through 3 to 4. Point 5 = 1 1-2″ from C. Point 6 = 1″ from C. Point 7 = 1″ from 6. Point 8 = 2″ from C. Point 9 = 1-8″ from 8. Draw curve from 5, through 7 and 9 to E. Point 10 = 1-2″ from D. Point 11 = 1-2″ from B.

In placing on material, place line AC on crosswise fold, or line EF, straight lengthwise. French-seam sleeve, and gather around top, from point 7, to within 1-2″ of point 1. Turn up bottom of sleeve to allow for ruffle and casing for elastic.

For sleeve pattern, twelve year size, take paper 18″ x 16″. Proceed according to previous directions, making all measurements three times as great as in small size.

*Lengthwise—even with the selvage or even with the warp. Crosswise—at right angle to selvage, or even with the woof. Bias—diagonally across warp and woof.

SKIRT

Cut skirt 11″ long (lengthwise of goods), and 27″ wide. Make 1″ hem at bottom. Leave opening 3″ deep at center back for placket. Finish placket with narrow hem (sloped to a point at bottom) on one side, and 1-2″ hem on other side, tacking wide hem over narrow at bottom.

Gather each side from center front, two rows, to hems. Place in band required size, band cut lengthwise of goods and 1 1-2″ wide.

In large size pattern use about 3 1-2 breadths of material 31″ wide. Cut long enough to reach nearly to ankles, allowing hem.

BODICE PATTERN

Take sheet of paper 8″ x 12″. Fold through center lengthwise, then crosswise. Letter corners .as in chart. Point 1 = 2 1-4″ from A. Point 2 = 1 3-4″ from A. Point 3 = 1 1-2″ from 2. Point 4 = 1″ from 1. Draw curve from 1 through 4 and 3 to 2. Point 5 = 1″ from C. Point 6 = 1 1-2″ from 5. Draw curve from 5 through 6 to 7.

Cut on these lines, then open pattern and cut one fold only from 1 to B, for opening at back. Cut material folded same as pattern. Hem edges of back; face neck, armseye, and bottom with bias strips of material.

To work out pattern for twelve year size, take sheet of paper 22″ x 34″. Proceed according to previous directions, making all measurements three times as great as in small size.

APRON

Cut apron 9″ long, and 11″ wide. Make narrow hem at sides and 1″ hem at bottom. Gather top into 4 1-2″ space and put into band cut 7 1-2″ long, and 1 1-2″ wide. Insert strings into ends of band. Strings to be cut 11 1-2″ long, and 2″ wide, with narrow hems at sides and 1-2″ hem at ends. Cut strings and band lengthwise.

In large size apron, use one width of material 31″ to 36″ wide. Cut so that bottom of apron will reach skirt hem, allowing for hem on apron. Cut band 3″ wide, and strings 4 1-2″ wide.

BLANCHE E. HYDE
Newton, Massachusetts

THE SIMPLEST WEAVING

THERE is no hand exercise which has a larger social value and which interests little people more than simple textile weaving. The ability to form a substance suited to need, from materials within reach, seems to have been a primitive instinct. It is a long way from the work of primitive man to the modern mill with its hundreds of looms, but the evolution is a natural one. For this reason the primary course can lay a little of the groundwork for an intelligent understanding, later on, of some of the present day industrial problems.

The following course is planned primarily for beginners, with opportunity for the exercise of individual expression in the selection of materials and the arrangement of color.

The average cost of material per grade for one year, if purchased in reasonably large quantities, need not exceed two dollars, or about five cents per pupil. Most of the materials can be purchased in bulk from any dealer in school supplies. Above the first grade, each pupil can make his own loom.

This month a problem suitable for first grade work is selected —the making of a table mat.

I. TABLE MAT

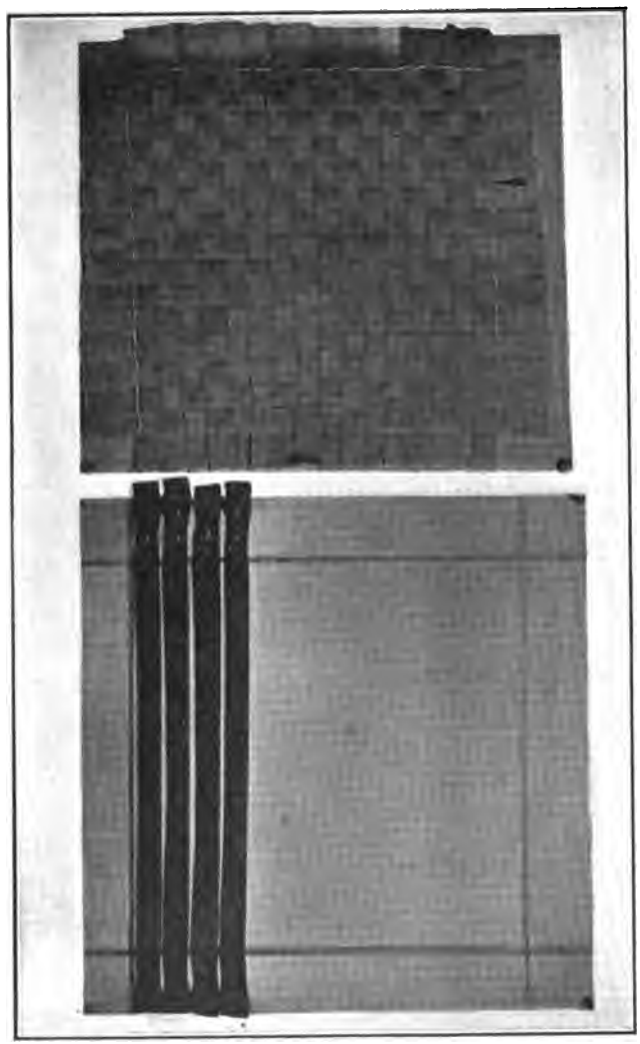
Processes. Use of warp and weft in short lengths; pinning. Fingers the only tools. Coöperative work.

Materials. Paper, cloth, pins, coarse needle and thread.

Oral Language Work. Simple talks on the sheep and wool; washing and dyeing of wool; meaning of loom and weaving; of warp and woof. Simple story of raw materials found in Poulsson's In the Child's World, p. 413; Steiger's Textile Studies for the Schoolroom, p. 29; The Angora Goat, Farmer's Bulletin No. 137, U. S. Dept. of Agriculture.

DIRECTIONS FOR MAKING

Use strips of outing flannel, felt, cloth, or braid, either Angora or Merzo, about 1″ wide. Choose one color for warp and another for weft. Cut these strips into 12″ lengths, eight of each color.



Paper loom with braid warp, 12' x 12".
Table mat of old blue and gray Merzo braid. First grade work.

Use a 12″ square of rather heavy paper and rule a line two inches from each edge parallel with each side.

Select eight strips of one color for the warp. Pin the warp strips to the paper at both ends (see illustration). The first strip should be placed two inches from the edge of the paper along the ruled line. This is to allow for the fringe. Continue until the eight warp lengths have been pinned.

Weave the eight strips of contrasting color through the warp, one at a time, until the space is filled and all the weft has been used.

Finish with a coarse running stitch around the sides to hold the strips in place. Use a darning needle and cord or luster thread of a suitable color for this purpose. Remove the pins.

When using a paper loom any size of mat may be planned. Rectangular forms can be made as well as squares, and worked out as individual or coöperative exercises.

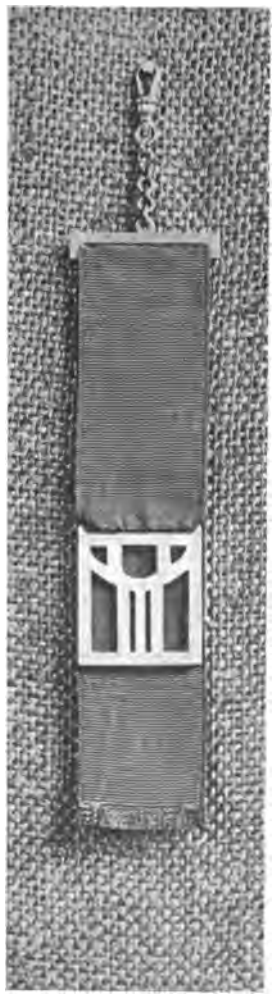
The pupils should do as much of the preparatory work as possible. Four pupils can work on one mat at the same time. Two can measure and cut the lengths while the others pin. The weaving can be done from the two ends towards the middle thus allowing two pupils to weave at the same time. The mat should be put to immediate use in the schoolroom. If material is scarce the strips can be separated after a time and used again for a second weaving exercise.

KATHERINE FRENCH STEIGER
Training School, Rochester, New York

METALRY

BOYS who have worked in wood or other easy material, sometimes long for other worlds to conquer. Here is another world, the world of Metalry. Mr. Augustus F. Rose, a teacher in Boston, and author of "Copper Work," has agreed to furnish a problem and its solution each month this year for ambitious boys to work out.

A METAL WATCH FOB



EVERY boy has a watch, of course, sooner or later, and every boy must sometime have a watch fob. I know of nothing that a boy takes more interest in than in the making of a fob of his own, of course, for every boy wants his fob different from everybody's else. In making a fob the first thing necessary is a drawing or design. First make several quick sketches; choose the best one, and carefully redraw it full size.* Place a piece of tracing paper over the drawing Fig. 2 and make a tracing, being very careful not to lose any of the details of the original design. Glue the tracing to the piece of copper to be used for the pendant, using a little liquid glue diluted with water. After allowing it to dry for a few minutes it is ready to work on. First with a center punch—Figure 3, that can be made out of a large wire nail pointed with a file, in each of the places that are to be cut out, make a little depression as a start for the drill to prevent its wabbling over the surface of the metal. Care should be taken to keep a distance away from the line of the design. The holes are then drilled, and the openings sawed

*The fob here illustrated, initial and Figure 1, has been successfully worked out.

FIG. 9

out, using the saw frame and a No. 1 saw. The saw is placed in one end of the frame with the teeth pointed out and toward the handle. The loose end is put through one of the drilled holes and then fastened in the other clamp of the frame. The metal is placed on the piece of board that has been fastened to the edge of the bench, as shown at Figure 4, A, and

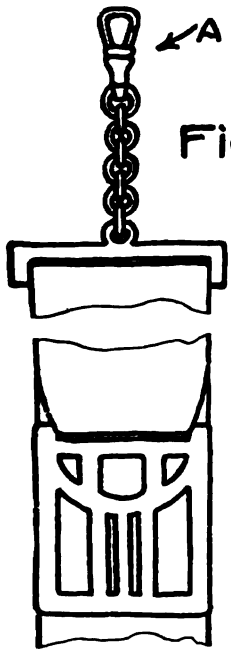


FIG. 1

FIG. 2

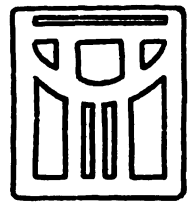


FIG. 3

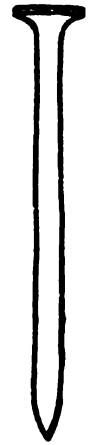
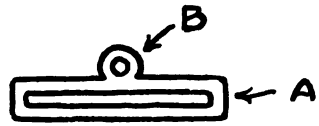
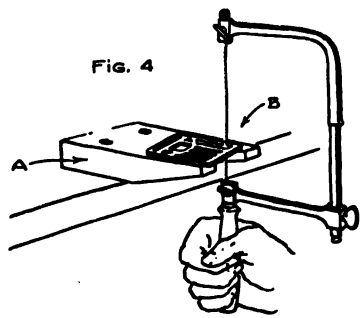


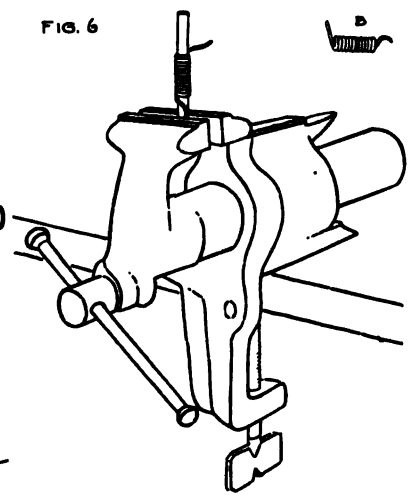
FIG. 5

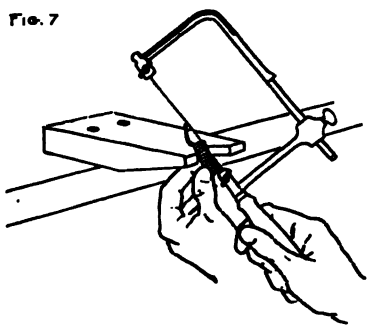


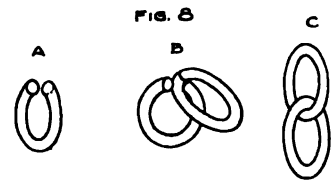
while the saw is held in a vertical position the cut is made on the downward stroke—Fig. 4. B. The up-and-down motion in the use of the saw may be acquired by sawing thin wood. It is well to practise this motion a few minutes before sawing the fob. In sawing all the openings keep as close to the lines as possible, and be very careful not to go over the line. Then saw the outline and when all the sawing is done files are used to true up and smooth the edges of the outline and openings. The flat file is used on the straight edges and the half-round

file on the curved edges. The square file may be used for cleaning corners. A little rubbing with a piece of emery paper removes any rough, ness. The slot in the pendant and in the bar, Fig. 5, A at the top of the fob through which the ribbon is to pass is sawed and filed in the same way. The slot in the pendant is made a little narrower than the ribbon is wide allowing









the ribbon to gather a little at that point. A projection is left at the top of the bar, Fig. 5, B, where the chain is connected.

To make the chain, take the No. 18 wire, and, with one end of the wire fastened in the vise together with a wire nail about 1-8 inch in diameter, wind it around the nail as shown in Figure 6, A. After about ten turns have been made, remove the nail and wire from the vise and slip the wire off the nail,

leaving it in the shape of a small spring as at Figure 6, B. Holding the coiled wire as shown at Figure 7, saw the links apart and when separated they will look like Figure 8, A. With the chain plyers open the links as at Figure 8, B, wide enough to admit another link and then close again as at Figure 8, C, and so on until the required length is made. About seven links make a chain

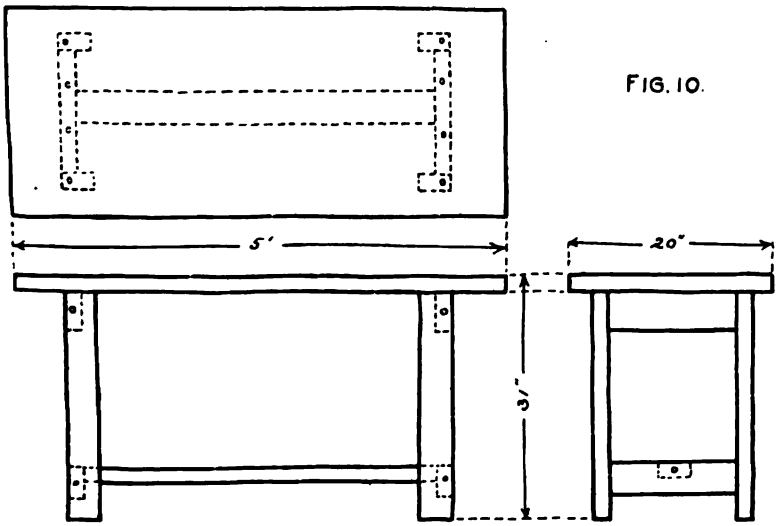


FIG. 10.

long enough to hang well. One end of the chain is then linked through the projection left at the top of the bar, Fig. 5, B, and the swivel, Fig. 1, A, is attached to the other end, and the metal part of the fob is then completed.*

*A bench or table to work on, and the following tools are necessary to carry out this problem: 2 1-2 inch bench vise, 4-inch jewelers saw frame, 1 doz. No. 1 metal saws, and drill, No. 60 twist drill straight shank, 5 1-2 inch half round needle file, 5 1-2 inch square needle file, 5 1-2 inch equalling file, pair 4 1-2 inch chain plyers, sheet of emery paper No. 00.

A home made bench, Fig. 10, that will meet every need and one on which a variety of work may be done is made as follows:—Get about 18 feet of 2" x 4" spruce studding and a 2" plank, 10" wide and 10 ft. long (maple is best). From the 2" x 4" stock cut four legs 29" long, four cross pieces 14 1-2" long and one stretcher 3' 9" long. Cut the plank in two pieces 5 ft. long. Get 1 1-2 dozen lag screws 3 1-2" long, bore holes located as shown in the drawing and it is ready to go together. Put the legs together first, then put the stretcher in place, and next the top.

After rubbing the surface of the metal a little with emery paper, the ribbon is then put through the slot in both the bar and the pendant connecting the two, as in Figure 9. Take a needle and a little black silk thread and fasten ribbon at A, A, Figure 9. Rubbing the metal with the emery paper leaves it quite bright but after two or three days use it will turn a beautiful bronze color.

AUGUSTUS F. ROSE

Boston, Massachusetts

MATERIALS

A piece of sheet copper 1 3-4" x 2 1-2" No. 12 gauge, twelve inches of No. 18 soft copper wire, a copper swivel, one-third yard of 1 1-4" fob ribbon.

The No. 12 gauge copper and the copper wire can be bought at most hardware stores, and the swivel at a jewelers' supply store or possibly at a jewelry store. The fob ribbon will be found at the ribbon counter of any dry goods store.

To enable those interested in this problem in getting the necessary tools and materials Mr. Rose will send them as specified above to any address on receipt of postal money order for $3.75 if ordered together. If ordered separately, thirty one-cent stamps for materials, and postal money order of $3.45 for tools. All correspondence to Mr. Rose should be addressed to 14 Woodbridge St., Cambridge, Mass.

EDITORIAL

THE long vacation is over.

The wind comes up across the hill, the wind goes laughing by:
The sweet September calls us before the flowers die:
It's time to take your basket up and follow on with me,
Along the road and up the hill strange countries for to see.

So rings one of the Songs of Saint Bartholomew, by Miss Birchall; so says the Editor of The School Arts Book to his invisible friends. Let us begin the year by gathering some of the waiting flowers for our schoolrooms. Let us arrange them as skilfully as the golden rod of the initial was arranged by Miss Warner of the Fitchburg Normal School, and let us use the bouquet to entice the children to journey with us into the fair land of Beauty. We must all see more beauty in the common things of every day, and produce more beauty every day in the common tasks of the schoolroom.

I like to start off a new volume of The School Arts Book with an ideal for the year. Sometimes it has been expressed in words; this year it is expressed in line and tone, and most happily expressed, by the authors of The Manual Arts for Elementary Schools. Through the kindness of the publishers, D. C. Heath & Company, it appears as our frontispiece in its original colors. As a composition within a circle, as a decorative arrangement of light and dark, as a bit of good drawing, and as an embodiment of our ideal for school work, happy and wholesome occupation for every child, it is of unrivalled excellence. Let us endeavor this year to make our schoolrooms everywhere of such a character that this might be a glimpse into any one of them.

Let us avoid fads. A school fad is a sort of professional fancywork. Fancywork is well described by the author of

Elizabeth and Her German Garden as "an invention of the evil one to prevent the foolish from applying their hearts unto wisdom." Fads arise through experimentation with materials. In an evil hour some curious, untrained searcher for novelty hits upon a new use for an old medium,—makes foxgloves of woolen cord, or napkin rings of raffia, or picture frames of putty stuck full of small hardware and gilded, or some other abomination, and thereupon evolves an illustrated article for some woman's journal entitled "Forty Arty Things Made of Paper Pulp," or some such. The thing strikes the fancy of the idle and the ignorant, and the craze or fad begins its spawning run. A previous generation was afflicted with the spatter-work craze, the splint-work craze, the decalcomania craze, the perforated-cardboard-variegated-worsted craze, and the Battenburg craze. In schools we have survived the chalk-modeling fad, the cardboard modeling fad, the bent-iron fad, the burnt-wood fad, and are now broken out with the raffia fad, the tooled leather fad, and the woven worsted fad. Fads thrive on the thoughtless. All materials are good, and to be received with thanksgiving; but they must be used intelligently. A raffia basket may be beautiful, a raffia picture frame is an atrocity; a wooden footstool may be a comfort, a wooden candlestick is a danger; a bent-iron curtain ring may serve its purpose, but a bent-iron glove box can serve only as a ludicrous memorial of misapplied energy.

Fads are impossible where people ask, first, for what purpose is this thing to be made, and second, what is the best material in which to make it. And fine handicraft appears when people who have answered these two questions intelligently, proceed to produce the thing in the most direct and skilful way guided by good taste.

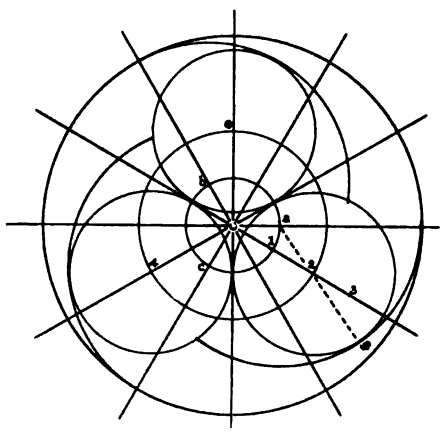
In our schoolrooms let us confine the problems so far as possible to the immediate needs and interests of the children

in each grade; having grasped a problem, let us next select the most appropriate means for working it out. In the working out of the problem let us bring to bear upon it all the skill and taste we possess; and let us lead all our children to do the same.

¶ The cover stamps for volume IX will give ten historic examples of the decorative filling of the circle with geometric tracery. That which appears on the cover this month is a well-known Japanese symbol. In a most entertaining little booklet published by the Northern Pacific Railway in 1901, entitled The History of a Trade Mark, by Olin D. Wheeler, the origin of this symbol is traced back to the great monad of the Chinese, here reproduced. In the year 1017, a young Chinaman, Chow Lein Ki, invented this as a symbolic key to the philosophy of Fuh Hi which dates from about 3,000 B. C. It is said to symbolize variously the masculine and feminine principles of the universe, day and night, fire and water, and good and evil. Various modifications of it are to be found in the art of Korea and other primitive nations. I have selected one of the Japanese forms of it because the three are more appropriate to our modern philosophies of the true, the beautiful, and the good, the three R's, and the three H's, and no end of three-fold unities. The Japanese use it as a symbol of good luck, another reason for placing it on the cover of the initial number of a new volume of The School Arts Book.

The geometric construction of this figure, as given in a little volume of Japanese crests, published by Bunkio Matsuki of Boston, is shown in the accompanying diagram. Draw a circle of the desired size. Draw six diameters, dividing the circle into twelve equal parts. Quadrisect one radius, locating the points 1, 2, and 3. With the center of the circle as center

and a radius 0-2, describe the circle, the circumference of which locates the centers of the three monads at 2, 4, and 6. With



the center of the circle as center and a radius 0-1, describe the circle whose circumference locates the centers of the arcs of the tails, a, b, and c. These arcs are of course drawn tangent to the circles of the heads at the points corresponding to e. The drawing of the circumscribing circles which frame this symbol calls for the use of the esthetic judgment. The completed design should strike the eye as a well balanced whole with neither the margin nor the background, the frame or the symbol, unduly prominent.

¶ In a home two things give perpetual delight, an open fire and an aquarium. They are pictures in three dimensions and constantly moving pictures at that. In the average schoolroom the first of these is impossible, but the second is not. Mrs. Titcomb's article on The Balanced Aquarium ought to inspire a teacher here and there to allow herself and her pupils the great pleasure and instruction which a good aquarium affords. The cheapest and best form of aquarium for the schoolroom or the home is composed of one of the big glass covers such as one finds over piles of sandwiches at railroad restaurants. One of these covers holding two buckets of water can be obtained for less than two dollars. At the manual training school a

wooden ring like a doughnut ten inches in diameter and two or three inches thick can easily be made as a base. The hole of this wooden doughnut will receive the knob of the inverted cover. The profile of the ring may be a pleasing contour, like the base of an Ionic column, or the foot of a Renaissance chalice. About the best single plant for use in an aquarium is the anacaris. The best sand is bird gravel such as may be purchased from the stores. There are prepared foods for fishes, costing ten cents a box, which the fishes seem to enjoy. Three fishes would require not over two or three boxes a year.

The other contributed articles are right in spirit, at least, and ought to help. I want to call special attention to the series by Mr. James Hall, the second installment of which appears in this number. Mr. Hall's enthusiastic class in pen-craft at the Chautauqua School of Arts and Crafts the past season gave unanimous testimony in favor of such work in schools, and produced results which surprised everybody with their modest and winsome beauty. Under such inspiration even ordinary letter writing may become a "means of grace," and give fresh delight to one's friends. I shall have to publish some of the charming letters I have received from friends who take delight in even the smallest scrap of the work of their own hands, that you all may share my pleasure in the art of letter writing, an art which the typewriter ought not to drive out.

The calendar this year will be unique. The text will be prepared by Miss Elizabeth Kellogg, Librarian of the Art Museum of Cincinnati, Ohio. It will give the names of famous artists, craftsmen, poets, and other nature lovers, their birthdays, death days, quotations from their writings, and other matter appropriate to an art-craft calendar. The calendar will be an example of pen-craft by Mr. Bailey.

O ye children of men bless ye the Lord

SEPTEMBER

"BEAUTY no other thing is than a beam
Flashed out between the middle & extreme."
Harrick

1 WED

"ONLY THIS IS TRUE that BEAUTY is very beautiful, and softens and comforts and inspires and revives and lifts up and never fails." *Burne-Jones*

2 THU

"Season of mists and mellow fruitfulness!
Close bosom-friend of the maturing sun;
Conspiring with him how to load and bless
With fruit the vines that round the thatch-eves run;
To bend with apples the mossd cottage trees,
And fill all fruit with ripeness to the core:
To swell the gourd and plump the hazel shells
With a sweet kernel, to set budding more
And still more later flowers for the bees
Until they think warm days will never cease,
For Summer has o'erbrimm'd their chamber cells."
Keats

3 FRI

4 SAT

5 ✠

6 MON Labor Day

Play ends. Work begins

"Blessed is the man who has found his work"
Carlyle

7 TUES

8 WED 70 AD The capture of Jerusalem by Titus brought the seven-branched golden candle stick to Rome. Its semblance on the Arch of Titus is all that is left of the glories of the Temple.

9 THU John Singleton Copley d. 1815 Born in Boston, 1737. Visited Italy 1774. Settled in London & painted portraits, etc.

10 FRID Philip Gilbert Hamerton b. 1834. He said:
"The fundamental error in estimating the graphic arts is to rank them by comparison with the ineffable completeness of nature. ... The real test of excellence in a process is this: Will it conveniently express human knowledge and human feeling."

11 SAT

12 ✠ Charles Dudley Warner b. 1829. "I like to go into the garden these warm latter days and muse. To muse is to sit in the sun and not think of anything. I am not sure but goodness comes out of people who bask in the sun as it does out of a sweet-apple roasted before the fire."

13 MON Andrea Mantegna d. 1506
A country boy who at the age of ten was admitted to the gild of painters in Padua. A decorator painter and engraver.

14 TUE

15 WED James Fenimore Cooper b. 1789 Every boy should sometime range the deep woods with the Last of the Mohicans.

Praise Him and magnify Him forever

SEPTEMBER

THE AUTUMNAL ∴ EQUINOX marks ∴ the passing of the year. Watch every portent, even the newspapers, lest the frost catch you unaware. Clear up useless litter in the gardens, but remember the half-tender plants and save a shelter for the birds. Stand ready to ∴ make all snug for winter. The sun crosses the line on the twenty-second.

16 THU ●
17 FRID ◕
18 SAT ◕
19 SUN ◑
20 MON ◑
21 TUE ◑
22 WED ◑
23 THU ◐
24 FRI ◐
25 SAT ◐
26 ✠ ○
27 MON ○
28 TUE ○
29 WED ○
30 THUR ○

Francis Seymore Haden b. 1818. English surgeon and etcher. He never even wishes to transgress the limits of his art, but works hapily within them as a sea captain commands his own ship.

Hubert van Eyck d. 1426. Hubert van Eyck effected a revolution in oil painting, and breathed life into the symbolic art which had preceded him.

Vigil d. 19 B.C. Author of the Æneid.

Walter Scott d. 1832.

"The moon through the east oriel shone
Through slender shafts of shapely stone
By foliaged tracery combined

Luca della Robbia d. 1482. Florentine sculptor. Developed an ancient art to such a degree that the ware he produced was given his name. He made the bambini.

Antoine Louis Barye b. 1795 French sculptor of animals. The Michelangelo of the animal world.

"Welcome, Basil, my friend!.....
Never so much thyself art thou as when through the curling smoke of the pipe or the forge thy friendly and jovial face gleams round and red as the harvest moon through the mist of the marshes." *Longfellow*

George Cruikshank b. 1792. There are etchings by this man which are as excellent artistically as they are notable for genius & wit.

Mac Monnies b. 1863. Sculptor of the Nathan Hale (New York), Sir Harry Vane (Boston), Shakespeare (BC).

Michaelmas Day

There was war in heaven
Michael and his angels fought
against the dragon.

Tintoretto b. 1518. He possessed the most singular, capricious, and determined hand, the boldest.
[most extravagant, and obstinate brain -- in the domain of painting

The plant drawing for September ought to be better than ever, especially in the high school. As an example of French requirements along this line see opposite page. Isn't that a real geranium? How vigorous, how anatomical, how full of strong curves, how well composed the whole thing is! The person who made that drawing was willing to use his eyes, was modest enough to be taught by nature, and skilful enough to give a faithful report of his lesson. One such drawing is worth a bushel of "effects." Let us not deceive ourselves. "Effects" that are worth anything can come only after years of practice in good, honest, pains-taking, faithful drawing. We do the children an injustice when we lead them to think otherwise. Blurred flower masses, blotesque landscapes, broad-gray-line-and-bogus-paper-big-things, are what Carlyle would call phantasmagoria and simulacra. Let us learn to DRAW.

¶ The Workshop will be more attractive this year—more will be going on in it. The Outlines will be richer—more people will contribute to the making of them. In short, Editor and Publisher will do all in their power to make the magazine worthy of its place in educational current literature. I wonder if you, reader, realize that we are helpless without your coöperation. If you like the magazine, pay for it in advance, and urge others to subscribe for it. It cannot live without subscribers. The number of subscribers ought to double this year. The number must double if the magazine is to maintain its lead. Every additional subscription you send to the Worcester office is a guarantee that the magazine will bring more to *you* every month.

¶ The spirit of coöperation for securing good things is spreading throughout the country. A new law in Indiana makes possible the vital affiliation of the Public Schools and the

EXAMEN DE LA VILLE DE PARIS

1er Juin 1908.

Épreuves du second degré. — Plante d'après nature : Le géranium.
Dessin d'un élève reçu.

John Herron Art Institute of Indianapolis; the Museum of Fine Arts, Cincinnati, has plans for enlarged serviceableness; the Metropolitan Museum of New York is trying to reach out a helpful hand to the school population of the city; the Boston Museum of Fine Arts calls to the public from the steps of its new building, and offers greater opportunities for study. Collegiate courses under the auspices of the Museum are to be given this year, and other courses will be given at the Museum under Miss Irene Weir of Brookline, and Miss Helen E. Cleaves of Boston. Miss Weir will give twenty lessons in Drawing and Painting in Representation, Thursday afternoons, beginning November fifth, and Miss Cleaves will give fifteen lessons in Design as embodied in finished products, Saturday mornings at eleven, beginning December third.*

The spirit of coöperation is growing among far-sighted business men. A notable illustration of this is to be found in Brush and Pail, a house organ published by the Alabastine Company of Grand Rapids, Michigan. The June number is distinctively a school number. It contains brief articles on schoolroom decoration by William B. Ittner, Commissioner of School Buildings, St. Louis, Mo., and by C. P. Cary, State Superintendent of Public Instruction, Madison, Wis. The July-August number contains helpful suggestions for the use of the stencil, and other hints for home decoration, serviceable to teachers of design who are ambitious to have their work in touch with the time. All healthy art is applied art.

Teachers of design would find two cents unusually well invested if they send a letter stamp to the Raglin Hand Craft Mills, corner Jefferson and Philip Streets, Philadelphia, Pa., for Ye Book of ye Raglin Rugs and Curtains. It furnishes illustra-

*Further information may be had by applying to the Museum of Fine Arts, Boston, Mass.

tions of value in making clear to the pupils the difference between monotonous and rhythmic spacing and bad and good design in both form and color.

Still another manifestation of the right spirit has appeared in Trenton, N. J. With the opening of the fall term of the Trenton School of Industrial Arts, there will be coöperation between it and the leading manufacturers of Trenton for the purpose of increasing the efficiency of skilled labor in the factories and shops of the city. Mr. Howard H. Maxfield, Superintendent of the Pennsylvania Railroad Shops, Mr. H. G. Stoddard, President of the Trenton Iron Company, and Mr. Frank F. Frederick, Director of the School, have formulated a plan whereby apprentices making a start in the factories will begin a four years' course of special study at the Art School. The plan is expected to include ultimately all the leading manufacturers of the city.

CORRESPONDENCE

SELECTIONS from a few recent letters, not for the benefit of old subscribers, but for the benefit of those who happen to be looking through The School Arts Book for the first time.

Dear Mr. Bailey:—

I am not unfamiliar with your work, and my children delight in it. Do you want better fame than that?

Sincerely yours,
Michael Monahan,
Editor and Proprietor of "The Papyrus."

From New Jersey.

I have been a constant reader of The School Arts Book from the very first number until the present time, and value it very highly indeed. Long may it prosper in the work it has set itself to do.

From Maine.

I wish to thank you again for the profit and pleasure I get from your magazine. I keep the copies here at school and the children consult them whenever a drawing problem comes up.

From Pennsylvania.

The students and teachers of the Arts Department of our Normal School unite in the opinion that The School Arts Book should be in the hands of every teacher who wants better and more beautiful work as the result of a fuller and richer life on the part of the child.

From Boston.

The School Arts Book is the ne plus ultra for public and private elementary schools. I wish you had started it when I went to school. Suppose you didn't think of it! It makes our teachers "sit up and take notice."

From New Hampshire.

The School Arts Book is a great help and I get all the teachers I can to subscribe for it.

From Chicago.

I have just finished reading your School Arts Book for March with great interest. You certainly have the knack of getting up an attractive magazine but what is even more important it is "practical" to the last degree.

AN ART-CRAFT INDEX TO THE SUMMER MAGAZINES

PERTINENT ARTICLES

A Black Forest Pathway, Frederick van Beuren, Jr., Scribner's, August, p. 143.
Air Ships, Day Allen Willey, St. Nicholas, July, p. 780.
Along the Great Wall of China, William Edgar Geil, F. R. G. S., Harper's, July, p. 254; August, p. 341.
America Honors Keats and Shelly, Fitch C. Bryant, World To-day, August, p. 836.
American Pageants and Their Promise, Percy MacKaye, Scribner's, July, p. 28.
American Painters of Outdoors, Giles Edgerton, Craftsman, June, p. 275.
An American Printer's Mecca, Harry Lyman Koopman, Printing Art, August, p. 341.
An Artist of the Loom, Harriet Joor, House Beautiful, July, p. 43.
Animal Mind from the Inside, The, E. T. Brewster, McClure's, June, p. 150.
An Interesting Needlework Design Evolved from an Old Painting, Kathrine Sanger Brinley, Craftsman, June, p. 350.
A Planting Table for Bulbs, Indoors and Out, Parker Thayer Barnes, Suburban Life, August, p. 76.
A Rising Genius in American Caricature, Current Literature, June, p. 631.
Arnold Boecklin's Paintings, James William Pattison, House Beautiful, July, p. 39.
Art of Mary Cassatt, The, Lulu Merrick, Delineator, August, p. 121.
Arts and Crafts in England, C. R. Ashbee, House Beautiful, June, p. 14; July, p. 34.
Arts and Crafts Movement in America, The: Work or Play? Ernest A. Batchelder, Craftsman, August, p. 544.
A Sculptor Who is also a Craftsman (Paul Bartlett), Katherine Elise Chapman, Craftsman, July, p. 437.
A Southern Educator, Mrs. Mary Humphreys Stamps, Grace King, Century, June, p.271.
Augsburg, Robert Haven Schauffler, Century, June, p. 245.
Augustus Saint-Gaudens Established, Edited by Homer Saint-Gaudens, Century, June, p. 212.
Birds of the Night, B. S. Bowdish, Suburban Life, June, p. 331.
Birds We Ought to Know, Mabel Osgood Wright, Delineator, June, p. 779.
Book Racks with Metal Attachments, Augustus F. Rose, Manual Training Magazine, June, p. 389.
Call of the Country to the Craftsman Printer, The, Carl Purington Rollins, Printing Art, June, p. 217.
Cardboard Modelling (cont.), Felix T. Kingston, Practical Teacher, July, p. 26.
Carnegie Institute at Pittsburg Presented as the American Salon, James B. Townsend, Craftsman, July, p. 383.
Collections of Hugo Reisinger, The, I, German and American Pictures, Christian Brinton, International Studio, August, p. xxix.
Conservation of Natural Resources, Theodore Roosevelt, Chautauquan, June, p. 33.
Construction and Design in Wood Carving, Karl von Rydingsvard, Craftsman, June, p. 360.
Curious Cork Toys, Adelia Belle Beard, St. Nicholas, June, p. 739.
Curious Habits and Structures of Ants, St. Nicholas, August, p. 938.
Development of Impressionism, The, Charles H. Caffin, Circle, August, p. 90.
Dogs of St. Bernard, The, W. G. Fitz-Gerald, St. Nicholas, August, p. 918.
Eighteenth-century French Furniture at the Colony Club, International Studio, July, p. xxii.
Endings of Books, The, Alfred W. Pollard, Printing Art, July, p. 273.
Franklin on Improvement Backwards in Printing, Harry Lyman Koopman, Printing Art, July, 281.

Games that Chinese Children Like, Isaac T. Headland, Delineator, July, p. 78.
Glory of the Northwest, The, Stephen B. L. Penrose, Outlook, August, p. 695.
Good Taste in the Arrangement of Cut-flowers, Jessie G. Fritts, Suburban Life, June, p. 327.
Grotesque in Art, The, Craftsman, June, p. 356.
Growth and Beauty of Our American Cities, Craftsman, July, p. 399.
Hazing, Philip Lutz, Jr., World To-day, August, p. 851.
Herzog's Photographic Friezes, Current Literature, August, p. 171.
Hispano-Moresque Lustre Ware, Aymer Vallance, International Studio, July, p. 14.
Ignacio Zuloaga: Spanish Painter, James William Pattison, World To-day, June, p. 629.
Imagination and Literalism in Illustration, Charles H. Caffin, (II), Printing Art, June, p. 209.
Imitation Among Animals, Robert M. Yerkes, Ph. D., Century, July, p. 395.
Imitation in Monkeys, Melvin E. Haggerty, Century, August, p. 544.
Impressionistic Effects in Wood Carving, Craftsman, July, p. 477.
In Mushroom Time, L. W. Brownell, Suburban Life, August, p. 69.
Into the Unknown Land of the Onas, Charles Wellington Furlong, F. R. G. S., Harper's, August, p. 443.
Japanese Pictorial Art, Kan Hoshino, Practical Teacher, August, p. 66.
Léon Lhermitte, Painter of French Peasant Life, Frédéric Henriet, International Studio, July, p. 3.
Life of a Star, The, Waldemar Kaempffert, Outlook, August, p. 707.
Louis Potter, Hildegarde Hawthorne, Century, June, p. 243.
Louis Potter, M. Irwin MacDonald, Craftsman, June, p. 257.
Manufacturers' Opinions as to the Qualities needed in Boys whom they wish to employ, and comments, Gustaf Larsson, Manual Training Magazine, June, p. 393.
Meaning of Line, The, Agnes Farman, Practical Teacher, July, p. 28.
Modern Brickwork, II, Charles W. Stoughton, International Studio, July, p. 81.
Moorish Influence in Pottery, House Beautiful, July, p. xii.
Mr. VanIngen's New Mural Decorations in Chicago, William Walton, Scribner's, July, p. 125.
Museum Labels and Labeling, I, Frederic A. Lucas, Printing Art, August, p. 345.
New Egyptian Discovery, The, The Tomb of Horemheb, Arthur E. P. Weigall, Century, June, p. 289.
New Ways of Making Old-Fashioned Rugs, Mabel Tuke Priestman, Circle, July, p. 42.
Notable Department Store Cartoons, Charles E. Dawson, Printing Art, August, p. 349.
Notre Dame of Rouen, Elizabeth Robins Pennell, Century, August, p. 527.
Old Pewter Tankards, House Beautiful, June, p. 19.
Painters and Pictures, IX, George Clausen, R. A., X, L. Campbell Taylor, W. E. Sparkes, Practical Teacher, August, p. 73.
Persian Influence in Pottery, House Beautiful, June, p. xvi.
Portraiture of Ingres, The, Frank Fowler, Scribner's, June, p. 643.
Public School and the Home, The, Gustav Stickley, Craftsman, June, p. 284.
Return of Rose-time, The, Alice Lounsberry, Delineator, June, p. 785.
Rothenburg the Picturesque, Robert Haven Schauffler, Century, July, p. 348.
Saint-Gaudens the Master, Homer Saint-Gaudens, Century, August, p. 611.
Significant American Water Color Work, Craftsman, August, p. 510.
Simplified Mechanical Perspective, IV, Frank Forrest Frederick, Manual Training Magazine, June, p. 402.
Some Modern German Paintings at the Metropolitan Museum, Frank Fowler, Scribner's, June, p. 765.

Some New American Etchings by Mr. Joseph Pennell, Hans W. Singer, International Studio, July, p. 22.
Some Sculpture by Mrs. Vonnoh, International Studio, August, p. 121.
Some Water Birds and their Family Secrets, John B. Watson, World To-Day, August, p. 807.
Story of Dutch Painting, The, Charles H. Caffin, St. Nicholas, II, June, p. 680; III, July, p. 823; IV, August, p. 911.
Swimming versus Bathing, W. B. Ashley, Circle, July, p. 36.
Triumphs of Bird Protection, Herbert K. Job, Harper's, June.
Turning National Forests into Homesteads, J. L. Ellis, World To-Day, June, p. 636.
Two Largest Diamonds, The, George Frederick Kunz, Century, June, p. 277.
Verdure for the City Streets, Craftsman, August, p. 550.
Water-colors of M. Jeanes, The, Henri Frantz, International Studio, June, p. 274.
Western Influence upon Art in Japan, Charles Holme, International Studio, June, p. 280.
What One Man Did with a Canoe, H. D. Jones, St. Nicholas, August, p. 929.
Wild Fowl at Home, St. Nicholas, July, p. 842.
William and Mary Furniture, Virginia Robie, House Beautiful, July, p. 30.
William McTaggart, R. S. A., Painter of Sea and Land, Alexander Eddington, International Studio, August, p. 33.
Work and Home of Edward MacDowell, The, Mary Mears, Craftsman, July, p. 416.
Work of Bela L. Pratt, The, William Howe Downes, International Studio, July, p. iii.
Youth of Ireland, The, Myra Kelly, Outlook, July (Magazine number), p. 486.

ILLUSTRATORS

Adams, John Wolcott, Century, June, pp. 181-188.
Ashley, C. W., St. Nicholas, August, p. 879.
Aylward, W. J., Harper's, August, pp. 395-399, 401-403, 405.
Bailey, Vernon Howe, Craftsman, July, pp. 375-378.
Bartlett, Paul, Craftsman, July, pp. 439-442.
Bayha, Edwin F., St. Nicholas, June, frontispiece, pp. 675, 676; July, frontispiece, pp. 773, 775, 777.
Benda, W. T., McClure's, July, pp. 229-233.
Benson, Frank W., International Studio, August, p. li; St. Nicholas, August, frontispiece, p. 883.
Birch, Reginald, Century, August, pp. 600, 602, 604, 606.
Blaisdell, E. Warde, St. Nicholas, June, p. 706.
Blashfield, A. D., Century, August, p. 644; Ladies' Home Journal, July, p. 15.
Blashfield, E. H., International Studio, June, p. cii.
Blenner, Carl J., Printing Art, June, p. 236.
Booth, Franklin, Scribner's, July, pp. 656, 676, 678, 680, 682.
Booth, Hanson, Circle, July, pp. 10-12; August, pp. 61, 63; Delineator, July, p. 37.
Brangwyn, Frank, A. R. A., International Studio, June, p. 287.
Brehm, Worth, American Magazine, August, pp. 316, 319, 320.
Bull, Charles Livingston, Circle, August, cover.
Califano, J., Printing Art, June, p. 216.
Cassatt, Mary, Delineator, August, p. 121.
Castaigne, Andre, Century, July, pp. 325-328, 330, 332, 340, 342.
Chase, J. C., American Magazine, June, pp. 137-141.

Chase, Sidney M., Scribner's, July, pp. 1-9, 11; August, pp. 201, 203, 205, 207.
Chase, William M., Century, June, frontispiece.
Cleland, T. M., McClure's, June, pp. 158, 159.
Conacher, J., Century, August, p. 643.
Conde, J. M., Ladies' Home Journal, August, p. 19.
Conder, Charles, International Studio, August, pp. 133, 135.
Covey, Arthur S., McClure's, July, pp. 307, 309, 311, 313.
Cowen, F. E., St. Nicholas, August, pp. 877, 880, 881.
Craig, Frank, Delineator, July, pp. 46, 47; Harper's, August, pp. 353, 355, 358, 362.
Crane, Bruce, International Studio, August, p. xli; Scribner's, August, p. 255.
Crosby, R. M., American Magazine, August, pp. 406-409.
Cuneo, Cyrus, American Magazine, August, pp. 392, 394, 397-399.
Curtis, Elizabeth, St. Nicholas, July, p. 836.
Deland, Clyde O., Ladies' Home Journal, July, p. 13.
Denslow, W. W., St. Nicholas, June, pp. 701-704; July, pp. 805-812; August, pp. 925-928.
Deremeaux, Irma, Century, August, pp. 508, 511, 514.
Dixon, Maynard, McClure's, June, pp. 193, 194.
Drake, Hilah T., St. Nicholas, August, p. 929.
Duncan, Walter Jack, McClure's, July, cover.
Dunton, W. Herbert, Harper's, July, pp. 196, 202, 206; August, p. 371.
Eisley, Arthur J., St. Nicholas, July, p. 788.
Fenn, Harry, Century, August, p. 612.
Fisher, Harrison, Ladies' Home Journal, July, p. 17; August, p. 5.
Flagg, James Montgomery, Scribner's, June, p. 684; July, p. 12; August, pp. 157, 159, 161, 163, 164, 184, 219.
Floury, Albert, Outlook, August, p. 746
Fogarty, Thomas, American Magazine, August, pp. 346, 347, 349-352; Delineator, July, pp. 48, 49; August, p. 127; McClure's, June, pp. 173, 175, 177, 179-181.
Foote, W. H., Ladies' Home Journal, July, p. 9.
Forbes, Elizabeth, A. R. W. S., International Studio, August, p. 119.
Forbes, Stanhope, Scribner's, August, p. 256.
Foster, Will, Harper's, July, pp. 246, 252.
Frost, Arthur B., Century, June, pp. 265, 266, 269.
Furlong, Charles Wellington, Harper's, August, p. 445.
Gardiner, F. S., St. Nicholas, August, p. 909.
Gerome, Jean Leon, Printing Art, August, frontispiece.
Glackens, W., McClure's, July, pp. 271-273, 275, 276.
Green, Elizabeth Shippen, Harper's, July, frontispiece, p. 186; August, pp. 329, 331, 334, 338, 383, 384, 386-388, 390, 392.
Gruger, F. R., Delineator, June, pp, 772, 773.
Hambidge, Jay, American Magazine, July, frontispiece, pp. 213-216; Century, July, pp. 385, 386, 388-391; St. Nicholas, July, pp. 823, 824.
Herzog, F. Benedict, Current Literature, August, pp. 170, 172, 178 (photographs).
Higgins, Eugene, Century, July, pp. 382, 383.
Hitchcock, Lucius Wolcott, Scribner's, July, pp. 81, 83, 84; August, pp. 133, 135, 137, 139.
Hood, George W., Printing Art, June, p. 220.
Hunt, William Morris, Craftsman, June, p. 279.
Ingham, Elizabeth Howell, Outlook, August, p. 684.

Ingres, J.-A.-D., Scribner's, June, frontispiece, pp. 644, 645, 654-657.
Irvine, Sadie A. E., St. Nicholas, August, p. 933.
Jacobs, W. L., Century, June, p. 241; St. Nicholas, August, p. 901.
Jeanes, M., International Studio, June, p. 275.
Justice, B. Martin, Ladies' Home Journal, July, p. 11; August, p. 7.
Keller, Arthur I., Century, June, pp. 169, 173; Delineator, August, pp. 114, 115.
Kemp, Oliver, Century, August, p. 506; Harper's, July, pp. 283, 287; Scribner's, June, pp. 677, 679, 681, 683.
King, W. B., Delineator, August, p. 119; Ladies' Home Journal, July, p. 5; August, p. 13.
Kirby, Rollin, McClure's, July, pp. 243-245, 247, 249, 251, 295-297, 299, 300, 301.
Kirk, M. L., Printing Art, July, p. 280.
Knight, Charles R., Century, July, p. 420.
Koerner, W. H. D., Ladies' Home Journal, July, p. 7.
Krizman, Tomislav, International Studio, August, pp. 143, 145.
Lachman, Harry B., Ladies' Home Journal, July, p. 13.
Lenbach, Franz, International Studio, August, p. xxxii.
Lhermitte, Leon, International Studio, July, frontispiece, pp 3-11.
Lindner, Moffat P., International Studio, July, p. 56; August, p. 111.
Mann, Alexander, International Studio, June, p. 303.
McCormick, Howard, Century, July, pp. 412-417.
McTaggart, William, International Studio, August, frontispiece, pp. 84-91.
Meichers, Gari, International Studio, August, p. xxxiii.
Meylan, Paul Julien, Century, August, p. 523.
Mielziner, L. M., Delineator, July, p. 73.
Mignard, Pierre, Century, July, p. 393.
Millet, J. F., International Studio, June, p. 310.
Mitchell, G. H., Delineator, June, p. 781.
Mowat, H. J., McClure's, June, pp. 142-145.
Noble, J. S., St. Nicholas, June, p. 693.
Oakley, Thornton, Harper's, July, pp. 222, 223, 225-228; St. Nicholas, June, pp. 709, 712.
Oberhardt, William, McClure's, June, pp. 118-122.
Olgyai, Victor, International Studio, July, pp. 71, 73.
Pape, Eric, Scribner's, July, pp. 29, 30, 32, 34.
Peck, Esther, St. Nicholas, August, p. 899.
Peixotto, Ernest C., Scribner's, July, pp. 42, 43, 45-50, 89.
Pennell, Joseph, Century, August, pp. 527-529, 531, 533; International Studio, July, pp. 23-28.
Pfeifer, Herman, Circle, August, pp. 66-68.
Potter, Louis, Century, June, pp. 242-244; Craftsman, June, frontispiece, pp. 259-262, 357, 368.
Potts, W. Sherman, Scribner's, June, pp. 712, 717, 719, 720.
Powers, Marion, Harper's, August, pp. 468, 470.
Pratt, Bela L., International Studio, July, pp. iii-x.
Probst, O. F., Century, July, pp. 348-356.
Pyle, Howard, Harper's, August, frontispiece.
Read, F. W., Ladies' Home Journal, August, p. 9.
Richardson, Frederick, Century, August, p. 646.
Rogers, F., St. Nicholas, July, p. 821.

Rush, Olive, American Magazine, June, p. 170.
Rydingsvard, Karl von, Craftsman, June, pp. 361, 362.
Saint-Gaudens, Augustus, Century, June, pp. 213-216, 223, 225-227.
Sargent, John Singer, Century, July, p. 347.
Sartain, William, Craftsman, June, p. 280
Schneider, Arthur, Scribner's, June, pp. 669-674.
Schoonover, F. E., Harper's, July, pp. 204, 207.
Shannon, J. J., A. R. A., International Studio, July, p. 55; Printing Art, June, frontispiece.
Sloan, John, Century, August, pp. 568, 570, 572, 576.
Smith, Jessie Willcox, Ladies' Home Journal, August, p. 11.
Sorolla, J., y Bastida, Century, June, pp. 196, 199; International Studio, August, p. 153.
Stearns, Fred, House Beautiful, June, cover; July, cover.
Steele, Frederic Dorr, McClure's, June, pp. 135, 137, 139.
Stevens, W. D., Harper's, August, pp. 429, 430, 433, 435, 437-439, 441.
Stone, Walter King, Scribner's, August, frontispiece, pp. 144, 145, 147-152.
Storer, Florence E., Delineator, July, pp., 51, 70.
Strehlan, C. A., Ladies' Home Journal, August, cover.
Sumner, Amy Draper, Scribner's, July, frontispiece.
Taber, L. W., St. Nicholas, July, pp. 828, 829.
Tarbell, Edmund C., Craftsman, July, p. 387; St. Nicholas, July, p. 779; Scribner's, August, p. 254.
Taylor, F. Walter, Delineator, August, p. 123; Harper's, August, pp. 414, 420; McClure's, June, frontispiece; Scribner's, August, p. 210.
Taylor, L. Campbell, Practical Teacher, August, p. 76; International Studio, July, p. 43.
Town, Karl O'Lynch von, Century, June, pp. 246-248.
Townsend, Harry, Harper's, July, pp. 214, 218.
Tryon, D. W., Craftsman, June, p. 278.
Underwood, C. F., Century, August, p. 538.
Urquhart, Annie, International Studio, July, pp. 61, 63.
Vonnoh, Bessie Potter, International Studio, August, pp. 121-124.
Ward, Edgar M., Printing Art, July, frontispiece.
Watts, G. F., Outlook, August, p. 740.
Webb, M. E., Century, June, p. 250.
Weir, J. Alden, Craftsman, June, p. 277.
Whistler, James McNeil, Harper's, August, p. 425.
Wiederseim, Grace G., McClure's, June, cover.
Williams, J. Scott, American Magazine, July, pp. 265, 271.
Wilson, Rose O'Neill, Scribner's, July, pp. 52, 57-60.
Yohn, F. C., Scribner's, August, pp. 177, 180-182.
Zuloaga, Ignacio, World To-Day, June, pp. 631-635.

COLOR PLATES

Across Mounts Bay, Elizabeth Forbes, A. R. W. S., International Studio, August, p. 119.
"After a number of nights I dared to touch her hand," Elizabeth Shippen Green, Harper's, August, p. 388.
A Ground Swell—Carradalo, William McTaggart, R. S. A., International Studio, August, frontispiece.
A June Rose, Carl J. Blenner, Printing Art, June, p. 236.

"Apollo" of "The Hamadryads," Eric Pape, Scribner's, July, p. 34.
A Street in Sarajevo, Tomislav Krizman, International Studio, August, p. 143.
"Both ladies seemed careless of my lord's presence," Elizabeth Shippen Green, Harper's, July, p. 186.
Catalog cover, George W. Hood, Printing Art, June, p. 220.
Cover design, Alfred Brennan, Delineator, June.
Cover design, Charles Livingston Bull, Circle, August.
Cover design, Walter Jack Duncan, McClure's, July.
Cover design, Leon Guipon, Ladies' Home Journal, July.
Cover design, J. H. G. Soper, Delineator, July.
Cover design, Albert Sterner, Delineator, August.
Cover design, C. A. Strehlan, Ladies' Home Journal, August.
Cover design, Grace G. Wiederseim, McClure's, June.
"Dips into all the happiest, friendliest valleys," Walter King Stone, Scribner's, August, frontispiece.
Gossips, Annie Urquhart, International Studio, July, p. 61.
Harvest at Broomieknowe, William McTaggart, R. S. A., International Studio, August, p. 91.
"'I am accustomed to precipices,' the wooden soldier would answer," Elizabeth Shippen Green, Harper's, August, p. 384.
Illustrations for "Rip Van Winkle," M. L. Kirk, Printing Art, July, p. 230.
Les Dentellieres, Leon Lhermitte, International Studio, July, frontispiece.
Les Pecheurs a la Ligne, Leon Lhermitte, International Studio, July, p. 11.
Marmarole, Dolomites, M. Jeanes, International Studio, June, p. 275.
Miss Kitty, J. J. Shannon, Printing Art, June, frontispiece.
"Oil-clad figures, . . . knee-deep in a quick-silver sea of herring," Sidney M. Chase, Scribner's, July, p. 1.
Painted silk fan, Charles Conder, International Studio, August, p. 133.
Paintings from the Exhibition of Thumb-box Sketches shown at the Salmagundi Club, New York, in April 1909, Century, August, pp. 556, 557.
Philomene, Alexander Mann, International Studio, June, p. 303.
Portrait of a Young Girl, William J. Whittemore, Century, July, frontispiece.
"She sat lightly and proudly, her mask in her hand," Elizabeth Shippen Green, Harper's, July, frontispiece.
The Heart of the Appenines, J. Califano, Printing Art, June, p. 216.
The Moonlit Bay, St. Ives, Moffat P. Lindner, International Studio, August, p. 111.
The Pink Feather, Joseph De Camp, Century, August, frontispiece.
The Prioress beholds in vision the spirit of their love fulfilled, Eric Pape, Scribner's, July, p. 32.
The Red Box, William M. Chase, Century, June, frontispiece.
"Through all the greenest, most delicious mysteries of the Schwarzwald," Walter King Stone, Scribner's, August, p. 144.
"Until the forest files separate before you," Walter King Stone, Scribner's, August, p. 148.
"When all the world was young," Howard Pyle, Harper's, August, frontispiece.
Winter on the Banks of the Garam, Victor Olgyai, International Studio, July, p. 71.
"With ravishing outlooks upon wild hills and gentle valleys," Walter King Stone, Scribner's, August, p. 152.

NOTABLE DESIGNS

Beadwork, International Studio, June, p. 330.
Beaten brass, International Studio, August, pp. 136, 138.
Beaten silver, International Studio, August, p. 158.
Book racks with metal attachments, Manual Training Magazine, June, p. 389.
Brickwork, International Studio, June, p. xci.
Centerpieces, Ladies' Home Journal, July, p. 26.
Crochet, Ladies' Home Journal, August, p. 43.
Embroidery, Circle, August, p. 103; Delineator, June, p. 799; July, p. 65; Home Needlework, June,; International Studio, June, pp. 331, 333; August, p. 137; Ladies' Home Journal, August, p. 44.
Fancy Aprons, Ladies' Home Journal, August, p. 21.
Fancy Bags, Ladies' Home Journal, August, p. 21.
Linen Applique, Ladies' Home Journal, August, p. 45.
Lustre Ware, International Studio, July, pp. 14-22.
Needle and brush point, Circle, July, p. 47.
Needlework designs from old paintings, Craftsman, June, pp. 352, 354; July, pp. 473-475.
Old College Songs, with drawings by John Wolcott Adams, Century, June, pp. 181-188.
Painted silk fan, Circle, August, p. 133.
Patchwork quilts, Ladies' Home Journal, July, p. 27.
Rugs, House Beautiful, July, pp. 43, 44.
Shaw Memorial, A. Saint-Gaudens, Century, June, pp. 213-215.
Stencil, International Studio, June, p. civ; Ladies' Home Journal, August, p. 23.
Title pages, Printing Art, July, pp. 286-300.

THE SCHOOL ARTS GUILD

I WILL TRY TO MAKE THIS PIECE of WORK MY BEST

MAY CONTEST

AWARDS

First Prize, Book, a copy of Thirteen Good Animals, published by The Davis Press, and Badge with gold decoration.

Janet Stevens, IX, 119 Neal St., Portland, Me.

Second Prize, a set of "School Arts Sewing Cards," published by The Davis Press, and Badge with silver decoration.

Constance Hall, VI, 28 S. American St., Stockton, Cal.
Carl R. Keeler, VIII, Hill City, Kansas.
Helen Kershaw, VIII, 52 Pearl St., Reading, Mass.
Alice Mangum, VII, 1012 W. 11th St., Oklahoma City, Okla.
Bertha Miller, IX, Marengo, Ill.
Lora Rowell, VII, Webster School, Auburn, Me.

Third Prize, a set of "Trees in Silhouette," published by The Davis Press, and Badge.

Beulah M. Bell, VII, Academy Street School, Oneonta, N. Y.
Marvin Black, I, Oklahoma City, Okla.
Fred Cobb, Moultonville School, Newburyport, Mass.
Elmer Davis, IX, 6 Child St., Augusta, Me.
Edward Denn, IX, Florence, Mass.
Mary Egerton, V, 2215 St. Paul St., Baltimore, Md.
James Ganly, VII, 5 Winthrop Ave., Reading, Mass.
Verna Graichen, VII, 55 Knox St., Lawrence, Mass.
Frank Meier, VII, 29 Hall St., Lawrence, Mass.
Donald Wilson, III, Belleville, Mich.

Fourth Prize, the Badge.

Mabel Anderson, VI, 430 E. Worth St., Stockton, Cal.
Ethel Brand, VIII, Hill City, Kansas.
Bertha Brigham, IX, Turners Falls, Mass.
Edith Buck, VIII, 46 West St., Reading, Mass.
John Canepa, V, Kelley School, Newburyport, Mass.

John Champlin, Jr., Elm Street School, Westerly, R. I.
Harry Childs, IX, Florence, Mass.
Floyd Crook, I, Wasco, Ill.
Sarah Cullen, IV, 2462 Druid Hill Ave., Baltimore, Md.
George Cummings, VII, 47 Eutaw St., Lawrence, Mass.
Marjorie Day, V, Florence, Mass.
Mildred J. Delory, VIII, Elliot St., E. Braintree, Mass.
*Clementina DeRocco, VI, Quarry Hill School, Westerly, R. I.
Abbie Elliot, VI, Buckland, Mass.
Edith Folsom, III, 48 Ash St., Braintree, Mass.
John Frazier, I, Shaw St., E. Braintree, Mass.
Antonio Gastonquay, VIII, Jackman School, Newburyport, Mass.
*Dorothy Greenman, VI, Pleasant Street School, Westerly, R. I.
Margery Henry, VII, Painesville, Ohio.
William Hobson, IX, Florence, Mass.
*Doris Hovey, VI, Warsaw, N. Y.
Pauline Kerns, III, Hill City, Kansas.
William King, V, Quarry Hill School, Westerly, R. I.
*Mabel Klaus, II, Penniman School, Braintree, Mass.
Helen Knebel, VI, 1512 W. 6th St., Sioux City, Iowa.
Marguerite Larrabee, VIII, 16 Federal St., Augusta, Me.
Dorice Lord, VII, 215 Haverhill St., Lawrence, Mass.
Thomas Mengert, VI, 217 Gorsuch Ave., Baltimore, Md.
George Taylor Oliver, Jr., IX, 81 Clinton St., Everett, Mass.
Florence Parker, II, Albany, N. Y.
Angelina Peloquin, VI, 10 Lens St., Southbridge, Mass.
Viola Perkins, VIII, Millers Falls, Mass.
Kenneth Plummer, VII, Painesville, Ohio.
Norris Ridgaway, V, 2521 Maryland Ave., Baltimore, Md.
Freda Schiener, VI, 214 George St., Sioux City, Iowa.
Herbert Strong, V, Park Avenue School, Westerly, R. I.
Alice Sweeney, 155 Berkeley St., Lawrence, Mass.
Hazel Tanner, VIII, Turners Falls, Mass.
J. C. Templeman, 75 South St., Southbridge, Mass.
Dayton White, VII, Warsaw, N. Y.
Alice Whittier, 60 Saunders St., Lawrence, Mass.

*A winner of honors in some previous contest.

Honorable Mention

Frances Anderson, Wasco
Jessie Ashcroft, Hill City
Roger Atyeo, Belleville
Helene Augustine, Oneonta
W. B———, S. Braintree
Mildred E. Bradford, Buckland
*Joy Brandt, Hill City
Arthur A. Brisco, E. Boston
Willie Cardoza, Stockton
*Violet Christ, Warsaw
Esther Courtney, Painesville
Floyd Crook, Wasco
Alice Dorosiers, Southbridge
*Doris Doty, Painesville
Alonzo Ellsworth, Wasco
Grace Ennis, Westerly
Dorothy Farnham, Augusta
Leigh Flynt, Augusta
Florence Forsberg, Sioux City
Katie Fritz, Turners Falls
Dorothy Gage, Warsaw
Helen Gage, Augusta
Sadie Goodwin, Newburyport
Ethel Gustafson, Bristol
Lucile Gustus, Sioux City
Gertrude Hancock, Westerly
Catherine Hanley, Florence
Willie Hanlon, Florence
Henry Havens, Westerly
Winnifred G. Howland, S. Braintree
Jessie Hume, Warsaw
Mary Johnson, Braintree
*Isabelle Kaiser, Stockton
Milton Kingsbury, Stockton
Arthur Leirne, Southbridge
Paul Lyman, Millers Falls
Michael McCarthy, Westerly
Robert S. Moore, Baltimore
*Frank Morenzoni, Westerly
*Annetta Nicholas, Bristol
Hope Noyes, Westerly
Georgia Ogelsby, Baltimore
Emilio Pepin, Augusta
Archie Price, Sioux City
Esther Regan, Turners Falls
Rachel Riggs, Belleville
*Sheldon Rogers, Marengo
Dana Salmon, Turners Falls
George Sanders, Westerly
Kathleene Sawyer, Augusta
Harry Sears, Braintree
Napoleon Shabbott, Quinebaug
Lavinia Startzman, Baltimore
Marion Stedman, Bristol
Camilia Stevens, Newburyport
Harry Travis, Wasco
*Gertrude Wells, Southbridge
Ralph Wilder, Buckland
Eleanor H. Wilson, Braintree
*Donald Wright, Belleville
*Lillian M. Young, Westerly

SPECIAL PRIZE

Nature Packet and Badge.

Edith Gulow, VI, Turners Falls, Mass.
Charles Hull, VII, Millers Falls, Mass.

*A winner of honors in some previous contest.

Please remember the regulations:

Pupils whose names have appeared in The School Arts Book as having received an award, must place on the face of every sheet submitted thereafter a G, for (Guild) with characters enclosed to indicate the highest award received and the year it was received, as follows:

These mean, taken in order from left to right, Received First Prize in 1905; Second Prize in 1906; Third Prize in 1907; Fourth Prize in 1906; Mention in 1907. For example, if John Jones receives an Honorable Mention, thereafter he puts M and the year, in a G on the face of his next drawing submitted. If on that drawing he gets a Fourth Prize, upon the next drawing he sends in, he must put a 4, and the date and so on. If he should receive a Mention after having won a Second Prize, he will write 2 and the date on his later drawings, for that is the highest award he has received.

☞Those who have received a prize may be awarded an honorable mention if their latest work is as good as that upon which the award is made, but no other prize unless the latest work is better than that previously submitted.

☞Remember to have full name and mailing address written on the back of each sheet. Send the drawings flat.

☞If stamps do not accompany the drawings you send, do not expect to obtain the drawings by writing for them a month later. Drawings not accompanied by return postage are destroyed immediately after the awards are made.

☞A blue cross on a returned drawing means—"It might be worse!" A blue star, fair; a red star, good; and two red stars,—well, sheets with two or three are usually the sheets that win prizes and become the property of The Davis Press.

I WILL TRY TO MAKE THIS PIECE OF WORK MY BEST

THE MOTTO of the SCHOOL ARTS GUILD
PRESENTED BY The SCHOOL ARTS BOOK
WORCESTER MASSACHUSETTS U S A

H·T·B

The School Arts Book

AN ILLUSTRATED MONTHLY MAGAZINE for THOSE INTERESTED IN DRAWING *and the* ALLIED ARTS

HENRY TURNER BAILEY
EDITOR

September to June inclusive — $1.50 a year, in advance

VOL. IX — OCTOBER, 1909 — NO. 2

Entered at the Post Office at Worcester, Mass., as second class matter, August 17, 1903

CONTENTS

An Experiment in Picture Study — Walter Sargent
The Home Beautiful — Louise K. Morss
Pottery Craft in Schools — Cheshire L. Boone
White Silhouettes — Kihachero Matsuki
Ten Great Paintings, IV — Henry Turner Bailey
Annotated Outlines, November, with Illustrations, Reference Material
The Workshop—Woodworking — Frank G. Sanford
Weaving — Katherine F. Steiger
Sewing — Blanche E. Hyde
Metalry — Augustus F. Rose
Editorial: The Passing of the Leaves; Pen Craft, etc. — Editor
Helpful Correspondence — School Arts Guild — The Arts Library
Reliable Advertisements — Trade News

Published by THE DAVIS PRESS, Worcester, Mass.

COPYRIGHT, 1909, BY THE DAVIS PRESS. ALL RIGHTS RESERVED.

BULLETIN

November and December are devoted to constructive design and handicraft, according to The School Arts Book Outlines. The November number will therefore be full of helpful suggestion for the making of things appropriate to our National Festival, Thanksgiving.

The frontispiece will be a reproduction in full color of The Harvest Field, a painting by Walter Sargent.

Among the contributors for November are Lewis F. Day of England, Miss Ripley of the Boston Trade School for Girls, and Royal B. Farnum of the Cleveland School of Art.

An educational-commercial experiment in manufacturing by school children will be desccibed by Mr. Frank M. Leavitt of Boston.

WHY NOT
USE
A
& B A
LEADER
?

The School Arts Book

Vol. IX OCTOBER, 1909 No. 2

AN EXPERIMENT IN PICTURE STUDY

THE topic "Picture Study" which occurs in most courses in drawing, deserves all the prominence that is now given to it. The majority of people want to be able to appreciate and enjoy works of art. Intelligent enjoyment of art is seldom gained except through special study definitely planned to accomplish that end. To determine what lines that study should follow has been the purpose of much discussion and experimentation.

One method, perhaps the method of least value in elementary schools, is to analyze pictures in order to discover centers of interest, balance of masses, leading lines, etc. This is helpful to adults as a study of one phase of the painter's way of doing things, but unless presented with clear understanding of its relative value it is likely to fail to develop a sincere enjoyment of pictures.

Another method is to show pictures to the children and encourage them to talk about what they see and enjoy. Incidentally, stories of the artist, the times in which he lived and the things he chose to paint are presented to add historical interests and associations to the pictures. This way gives pleasant acquaintance with works of art and awakens oftentimes a sincere liking for them.

If one allowed his judgment to be based upon the written papers which are sometimes asked for after lessons in picture study, he might be led to doubt some aspects of this method, but perhaps the fault is not in the method but in asking too soon that children make a statement in definite terms of language, regarding matters of feeling.

Perhaps instructors who wish to awaken in their pupils true enjoyment of pictures, an enjoyment that is not a passing

preference but an abiding pleasure, might find helpful suggestions from considering carefully the familiar statement that one gets from a picture only what he brings to it. It may follow that preparation for seeing the picture should be made before the picture is presented, in order that the children may have something of value to bring to it, and that the teacher's explanations may be unnecessary at the time. It is possible that such enjoyment of art as we wish our pupils to possess can come only when they have been previously interested in the subject which the artist portrays, so when they come to it they come to something which they themselves have tried to express even though crudely and which they rejoice to see set forth skilfully.

The following experiment was tried, with a large number of children in Boston in the sixth, seventh and eighth years of school, in order to observe the results of giving the children experiences which should prepare them to see the pictures which were to be studied.

Twilight was selected as a topic for special observation. The children were encouraged to gather pictures of twilight from magazine illustrations, photographs and other sources. They were led to observe twilight effects out of doors. The results of these observations were rendered definite by means of notes made with water color. The colors of the sky, clouds, trees and buildings on different evenings were recorded. The children noted whether the buildings seen against the sunset sky appeared in their local color or were flooded with the golden glow, or contrasted with it by appearing to be complementary in hue. The children were enthusiastic in their descriptions of twilight effects and made many sketches some of which were crude in color while many were soft and delicate.

The next steps in the experiment were made possible by the cordial coöperation of the Museum of Fine Arts which reproduced

in half tone several of its pictures, some of which represented twilight, and made these reproductions available for the schools at cost. About 1600 of these were bought by the teachers and distributed to the pupils. Each child made two or three simple copies in pencil of the Museum picture given him, reproducing the effect as well as possible by this means. He then experimented by adding to these pencil sketches, the different schemes of twilight color which he had recorded. He thus gained intimate acquaintance with an excellent black and white composition and added to this the color, an element which was the result of his own observation.

After this many of the children wished to visit the Museum in order that they might see the original picture. Those who had opportunity to do so, when they saw for the first time the painting with the composition of which they were already familiar, viewed it with particular attention to see what colors had been used by the artist and how his scheme compared with their own. Usually an art museum appears to a child to be something like a panorama. The previous study of a particular topic, however, served to isolate a few pictures from the mass and make them objects of special attraction. The children felt a fellowship of interest and effort between themselves and the artist.

Even those who did not visit the Museum gained much enjoyment of twilight effects in nature and of descriptions of them in literature.

One principal wrote as follows:

> You will be as pleased as I was myself when I tell you that two of my boys, evidently inspired by our collection of twilight pictures and without any suggestion on my part, brought me two poems bearing upon the theme we were studying in our drawing. One brought in a clipping from a newspaper which told of the ending of the day with the fading of the sunset colors, the night, and the dawning of another day making application to the closing of a human life in this world and its subsequent awakening in eternity. The

other, with the air of a discoverer, laid upon my desk Tennyson's "Sweet and Low," Wind of the Western Sea.

I read these to the class with simply an acknowledgment of the source from which I had obtained them. I was not surprised when boy No. 3 laid Gray's Elegy before me, a day later. I plan to have the class learn this while the strong sidelight of their picture study is still shining upon it and I see the possibility of other work within the outline for Reading, in correlation with Drawing.

The possibility of developing other topics in a similar manner is evident. To each great artist some phase of nature has made a particular appeal and it becomes his field for study and interpretation. Perhaps the best way to develop the fullest enjoyment and appreciation of his work is to awaken interests similar to those which inspired his art and to encourage efforts at expression, however crude, of the same thing.

WALTER SARGENT

School of Education
University of Chicago

NAT. L. BERRY

THE HOME BEAUTIFUL

A SUPERINTENDENT once called a series of meetings for teachers of the three upper grades, to consider the different subjects required by the course of study. As each came up for discussion he asked the following questions: (1) Why do you teach this subject? (2) What ought you to reasonably expect your pupils to be able to do when they enter your room? (3) How can you make this subject more vitally a part of the practical, daily life of the individual boy or girl? Geography and all the other cousins of the three R's were duly discussed but for some reason Drawing, Manual Training and Music were not considered in these meetings. Now the questions had elicited a mine of helpful comment and suggestion and I determined to hold a little private inquisition, in which at least one of the unbidden guests should hold first place, namely, Drawing.

Leaving for a time the answer to the first question, I proceeded to the second, What ought I to expect of an Eighth Grade? Was I too exacting when I looked for some ability in drawing form; a working knowledge of such principles of foreshortening and perspective as are required in nature drawings and landscape work; a certain sense of proportion and relative size in sketching from life and from objects in still life; a feeling for color harmonies and a fair amount of skill in manipulating water colors; together with a familiarity with the terms balance, rhythm and harmony when applied to the intelligent working out of a design?

Perhaps I expected too much,—at any rate this is what I discovered. A small fraction of each class has some ability in drawing. To these children the lesson is a delight and their power to see, feel, and express increases perceptibly week by week. The promise of the Good Book "To him that hath shall be given" surely holds true here. But what of the rest? To them a line is a line—any line will do—and the blacker the better! They care not for symmetry nor does the matter of relative size

enter into their calculations; color has no charm unless it embodies the artistic ideals of the American Indians; and a design means a collection of the most dissimilar "spots" the imagination can conceive it possible to place in immediate proximity! To this large majority the drawing lesson is a period to be lived through with as little friction as possible and happy the child who escapes having to "stay" for drawing!

So much for the actual lesson period--now what of its application to the child's everyday needs? Again let me report what I find, not what I should like to see. We teach color harmonies carefully--dominant, analogous and even perfected--and yet Mary comes to school resplendent in brown stockings, blue skirt, pink waist and horror of horrors! a crimson bow adorning her flaming braids. James reports that "We are having our front hall papered with a dandy design--a green landscape with some sheep and a pink and blue mountain in back of 'em!" It only needs quiet little Jennie's assurance that "There's some lovely red and green tumblers up to the Ten Cent Store," to make us feel with the Preacher that "All is vanity!"

Without further citing of illustrations I set myself to answering the following: How can I carry the drawing lessons into the very homes of these children--tenement houses, many of them with very little to recommend them except nearness to father's place of employment? Can the boy whose father and mother work in the factory, and who is left to the tender mercies of the street corner during the after-school hours, really get something from the drawing that will reach ever so little toward bettering the meager furnishings of his home? Can drawing and manual work be so associated that the lesson of the former worked out in the latter, will furnish interesting and helpful employment for spare time before and after school?

I think these things can be accomplished and the answering of that question opened up a vista of new possibilities to a class of thirty boys and ten girls—a class of hitherto "incorrigibles" in the drawing lesson. By judicious correlation with other work they came to see that drawing has a place in the average man or woman's life; and that careful planning, and right use of foundation principles, brought actual results. Their ideas of harmony, design, suitability to use and relative values underwent simply marvelous changes.

We made the Home Beautiful our central thought for the year. With the consent of the principal the morning exercises were shortened and a ten-minute period for discussion gained. Work in English, Arithmetic, Geography, Hygiene, Reading and other subjects, was made to contribute directly to the House in every possible way.

One corner of the schoolroom soon became "THE WORK-SHOP." A stencilled sign proclaimed that fact and beneath it a lettered motto announced

OUR AIM

TO LEARN TO WORK WITH OUR HANDS;
TO LIKE SIMPLE, USEFUL FURNISHINGS;
TO CHOOSE QUIET, RESTFUL COLORS;
AND TO MAKE THE WORK WE DO AT SCHOOL
HELP US TO ENJOY OUR HOMES MORE.

A long table with a plain deal top made a capital bench while a large wooden box beneath it provided storage room for our lumber. The equipment was very simple: a hand jig-saw, hammer, file, jack-knife, tacks, small nails and brads, a can of glue, and pieces of coarse and fine sandpaper. Our equipment is shown in illustration 1.

The House itself was composed of three wooden boxes--the kind in which Uneeda biscuits are shipped. These were arranged as may be seen in illustration 2. When partitioned off these formed six rooms. Openings for the windows and doors were determined upon, sawed out, and the boxes nailed firmly together. The outside was finished with cardboard

shingles, window casings and trimmings of thin strips of wood were added, while a pitch roof and realistic chimney gave the miniature dwelling a very serviceable exterior.

One group of boys did the papering of all the rooms, and set panes of real glass in each window by means of tacks and paper pasted firmly to the edges; the committee on shingling learned to "break joints" and did a very creditable piece of work; while still another group stained the floors and painted the ceilings and the exterior.

From a furniture company of Boston, I secured about a hundred sheets of fine illustrations of pieces of furniture—each piece on a separate sheet. A boy would choose the one he wished to work on, and after consulting me as to specifications for size, etc., he got out his stock and went to work. The stock was cigar-box wood, soaked to remove labels, dried under a heavy weight and sandpapered smooth. One boy who was familiar with a jig-saw showed the others how to use it and I was interested to learn that no less than eleven boys bought jig-saws to use at home, or received them as gifts from parents. A half-pint bottle each of red, green and brown stain enabled the youthful cabinet makers to produce quite pleasing imitations of oak, mahogany and walnut furniture. They even became critical of good workmanship and when one boy made a kitchen table and the legs proved unsteady several others came to me privately and begged to be allowed to make it over because "it didn't look right."

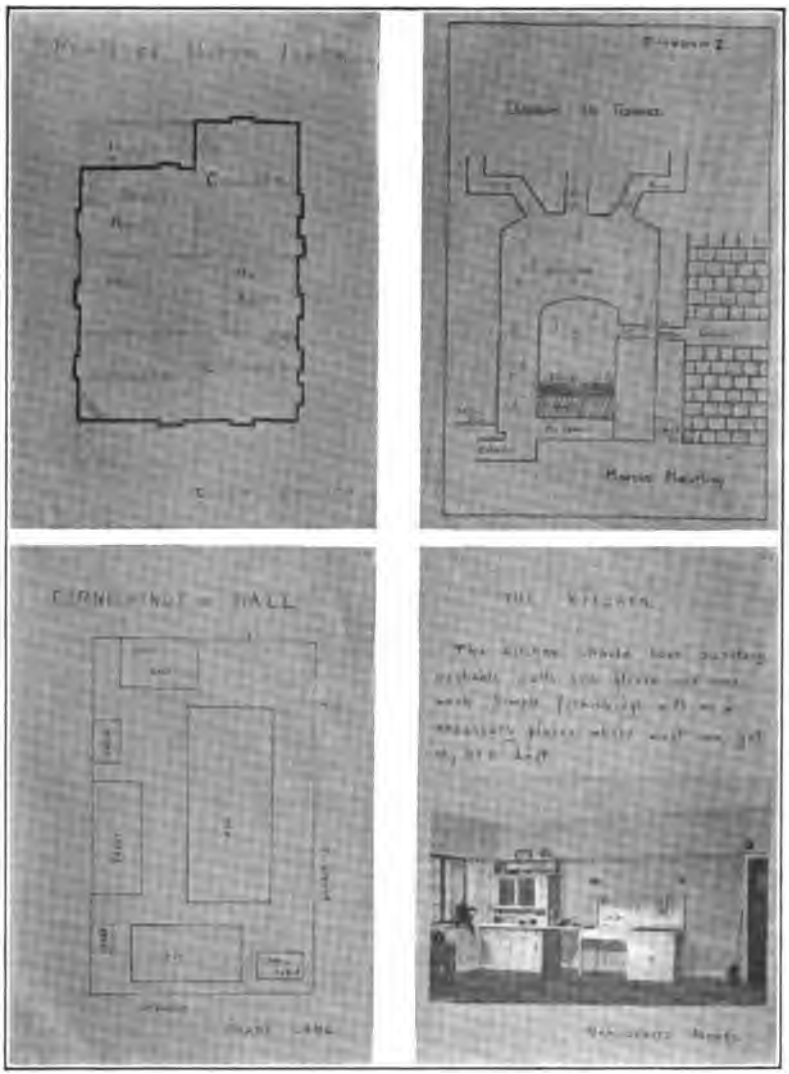
The girls were not idle while the boys made furniture. They wove rugs, hemmed curtains, stencilled portières, made sofa cushions, bed clothes, and table scarfs, and upholstered chairs and couches. One girl evolved a tiny hassock—and persevered through several unsuccessful attempts. Another made two tiny plaster of Paris plaques, one adorned with a head of Franklin, for the living-

room, the other with a child and kitten, for the bedroom. These, made entirely at the children's own suggestion, are two instances only of many examples of original ideas successfully worked out.

Interesting as the manual work connected with the House proved to be, the line of correlated work carried along at the same time, I deem much more important. In the ten-minute talks we discussed many things bearing on the work. This became the basis for written language during the English periods. The four best papers on each subject were saved and bound into booklets which contained work done by each pupil in the room. (See page 110.) These four booklets were the pride of the class and great was the effort to produce papers entitled to a place in them. In the Table of Correlations appended it will be seen how nearly all subjects became directly contributory to this end.

But Drawing was the subject which benefited most, though all work became better as a result. In the Fall each child tried to get the best flower drawing so that a tiny panel could be made to adorn the House. The landscape work was much better and quite Corot-like trees gladdened my eyes instead of the hard, metallic edges of former years. The painting which received the most votes was given a brown mat, passe-partouted with gold paper and made an artistic addition to the hall. Printing improved and became a means to an end—that the good workman might print the motto or letter the sign. In design the same gratifying results were to be seen and the most pleasing ones were stencilled on curtains, cushions and hangings. I might go right through the topics taught month by month in drawing and not one but what would show a gain in comprehensive treatment, a more intelligent working out of principles and a great deal more interest in the lesson itself.

The following table is intended to show some lines that might be followed—but subject to change as conditions in indi-



Four pages from one of the booklets on The Home Beautiful.

vidual cases might seem to warrant. The work extended over a period of seven months; with September given to general planning, December devoted to gift making, and no work carried on in June as school closes then and time for such work is necessarily shortened.

THE HOME BEAUTIFUL—TABLE OF CORRELATION

SEPTEMBER—GENERAL WORK

Manual Work	Drawing	Course of Study
BOYS Put in partitions; Cut openings for windows, doors; Shingle outside; Insert panesof glass;Paper walls; Paint outside; Make platform for porch. GIRLS Bring in samples of Wall papers; Linoleums, Oil cloth, Matting, Burlap. BOTH Collect pictures of interiors; Arrange sheets of color harmonies; Stencil sign; Print Aim or Motto.	PRINTING Plain lettering; Monastic Text. NATURE DRAWING Fall flowers: In neutral values; In color values. Simple drawing of Plans; Study of blue prints and builder's plans.	I ENGLISH Oral; Written. (a) House in general: Location; Arrangement of rooms; Cellar. Heating: Furnace, Steam. (b) Floors. Materials used —Coverings: Carpets, Rugs, Matting, Linoleum. Sanitary reasons for each. (c) Walls. Coverings. Why used? Kinds: Paper Burlap, Wooden panelling Choice of Paper. II ARITHMETIC Review Work: Measurements, Carpeting, Papering. III HISTORY Compare modern dwelling with houses of Pilgrims, Dutch, Virginians. IV HYGIENE Sanitary plumbing; Arrangement of Cellar; Ventilating and Heating Apparatus.

TABLE OF CORRELATION—Continued

OCTOBER—THE HALL

Manual Work	Drawing	Course of Study
BOYS Make Table, Chairs, Coat-Rack, Tabouret. **GIRLS** Make Curtains, Rugs, Table Cover. **BOTH** Passepartout landscape; Collect pictures of furniture; Stencil design for table cover.	**NATURE DRAWING** Fruit (in color) **LANDSCAPE** Harvest Scene **COLOR HARMONY** Dominant.	**I ENGLISH** Oral; Written. Hall: Entrance to home should be dignified, restful. Furniture: Simple lines; Suitability to use; Different styles—Mission, Colonial. Hall Furniture: Rugs, Table and glass, Coat Rack, Chair, Pictures, Tabouret and Fern. Letter Writing: Requests for furniture catalogues; Order for rug, chair, picture, etc. **II GEOGRAPHY** Wood (Material for floors.) Kinds: Hard; Soft. Regions: Relative value to man. Centers for Shipping; Furniture Making. **III HISTORY** Baronial Halls; Halls of Libraries and PublicBuildings; Coats of Arms.

NOVEMBER—THE LIVING ROOM

Manual Work	Drawing	Course of Study
BOYS Make Table, Morris Chair, Rocker, Couch, Two Straight Chairs, Book Case, Plant Stand.	**LANDSCAPE WORK** (Concluded).	**I ENGLISH** Oral; Written. Living Room: Central gathering place; Should be restful, well-lighted room.

TABLE OF CORRELATION—Continued

NOVEMBER—THE LIVING ROOM—Continued

Manual Work	Drawing	Course of Study
GIRLS Make Rugs, Cushions, Stand Cover, Curtains, Portières, Basket-cover for flower pot, Passepartout Motto, Fall flower.	THANKSGIVING WORK Print Motto. COLOR HARMONY Analogous.	Use topics along same lines as for Hall. Additional Topic William Morris: Life; Work. Test of furniture: Is it useful? Is it beautiful? II GEOGRAPHY Wool (material for rug); Sheep raising; Regions; Chief Centers; Manufacture into Cloth; U. S. Annual Export, Import; Chart of Wool Products. III NATURE STUDY House Plants—(a) Needs: Soil, Moisture, Sunlight, Care; (b) Kinds suitable for home; (c) Enemies, means of exterminating.

JANUARY—THE KITCHEN

Manual Work	Drawing	Course of Study
BOYS Make Table, Chair or Settle, Shelf, Sink (wooden one). GIRLS Make Curtains, Rug (braided of raffia); Cover floor with oil-cloth. BOTH Collect pictures of kitchen interiors and utensils, etc. Make chart of oil-cloth and linoleum designs.	OBJECT DRAWING Interesting group of familiar utensils and objects seen in kitchen. PRINTING Work out problem of Grocer's List giving careful attention to proper arrangement and spacing, etc.	I ENGLISH Oral, Written. Kitchen: Place where food is prepared; Should be light, large, convenient. Use topics as in Hall. II GEOGRAPHY Iron (Material of Stove); World Regions; Mining; Ore Transportation, Smelting; Centers; Manufactures of Iron (Chart); U. S. annual output; Countries to which we export it.

TABLE OF CORRELATION—Continued

JANUARY—THE KITCHEN—Continued

Manual Work	Drawing	Course of Study
	COLOR HARMONY Review of Dominant, Analogous.	III HISTORY Comparison of needs of primitive man with those of ordinary family as to kinds, quanity, cooking of food. IV HYGIENE Foods: Kinds in common use; Relative value to body; Adulteration and how to avoid it; Pure Food Laws

FEBRUARY—THE DINING ROOM

Manual Work	Drawing	Course of Study
BOYS Make Table, 3 Plain Chairs, 1 Arm Chair, Side-board, Cupboard. GIRLS Make Rug, Curtains, Portières, Table cloth, Scarfs. BOTH Stencil designs suitable to use in dining room. Make chart of dining room furnishings. Passepartout: Drawing of fruit, Perry Picture of game birds, Motto, Object Drawing.	OBJECT DRAWING (Concluded). Studies of groups suitable for use in dining room. Pitcher, tumbler, lemon, teapot, cup and saucer. DESIGN Basic principles; Good and bad designs. Emphasize: Center; Harmony of units. Work out simple design suitable for border on portière.	I ENGLISH Oral, Written. Dining Room: Place for privacy; Used for eating; Should be large enough for comfortable serving. Same topics as in Hall. II GEOGRAPHY Flax (material for tablecloth); World Regions; Cultivation; Preparation of fiber; Products obtained; Chart; Centers; U. S. annual import; Countries from which flax comes. III HYGIENE Teeth: Kinds; Structure; Uses; Care; Mastication; Best time to eat; Avoid over-eating, fast eating, eating between meals.

TABLE OF CORRELATION—Continued

MARCH—BED CHAMBER

Manual Work	Drawing	Course of Study
BOYS Make Bed, Dressing Table, Rocking Chair, Straight Chair, Bureau, Mirror Frame, Commode. **GIRLS** Make Rugs, Mattress, Bed Clothes, Bureau Covers, Curtains, Portières. **BOTH** Stencil Bed Cover, Curtains, Portières. Passepartout small Perry Picture, Pose Drawing, Spring Flowers. Tones of gray, brown, black.	**DESIGN** (Concluded). Design suitable for corner and border of table or bed cover. Emphasize principle of Bi-symmetry. **STENCIL** Method of preparing; Process of applying.	I ENGLISH Oral, Written. Chamber: Place for retirement; should be restful, airy, sunny. Same topics as in Hall. II GEOGRAPHY Cotton (material for bedding); Plant: Cultivation, Fibers; Manufacture; Centers; Products obtained; Chart; U. S. annual output. III HISTORY Life on Virginia Plantation; Slavery; Eli Whitney. IV HYGIENE Sleep; Nervous System; Time for; Need of; Number of hours of; Ventilation of sleeping room: At night; During Day; Care of Bedding.

APRIL—THE DEN

Manual Work	Drawing	Course of Study
BOYS Make Couch (leather covered), Rocking Chair, Foot rest, Book Case. **GIRLS** Make Curtains, Rugs, Couch and Table Covers, Cushions, Waste Basket.	**LIFE DRAWING** Study of 1, Animals in Motion: Cat, Dog, Bird. 2, Children in Motion: Walking, Running, Playing Games. Emphasize Proportion, Action.	I ENGLISH Oral, Written. Den: Used as place to entertain guest and not disturb family in living-room; Replaces old-time "parlour"; Suggests cozy comfort; contains more ornaments than main rooms; usually smaller in size. Same topics as in Hall.

TABLE OF CORRELATION—Concluded

APRIL—THE DEN—Continued

Manual Work	Drawing	Course of Study
BOTH Passepartout Pose Drawing, Perry Pictures, Poster Picture.	Quick sketches of single figures. Best sketches reproduced in water color as poster pictures.	II GEOGRAPHY Leather (material for couch covering): World Region; Tanning Industry; Things made of Leather; (Chart); Other Products—Beef: (Canning Industry); Glue; horn, bone, hair, uses; Phosphates; Centers for Shipping; U. S. annual output.

MAY—THE PORCH

Manual Work	Drawing	Course of Study
BOYS Make Chairs, Small Table, Small Stand for fern, Splint Porch-screen. GIRLS Make Canvas Hammock, Cushions, Rug, (Square or natural colored burlap). BOTH Collect pictures of Artistic Porches; Stencil pillow covers; Stencil burlap rug.	NATURE DRAWING Spring Flowers: Emphasize Pleasing grouping; Details of growth; Delicate tinting. FLOWER ARRANGEMENT 1. Suitable receptacles; 2, Artistic grouping; 3, Harmonious setting; Emphasize; One kind in group. Use of leaves as part of decoration.	I ENGLISH Oral, Written. The Porch: Relative value of covered and uncovered Porches; Used as outer sitting room; Place where guest gets first impression of home; Care of Floor; Screening from sun, insect, inquisitive eyes.

Many children, especially those of foreign parentage, are forced by home conditions to leave school during the Eighth grade. Drawing, when taught abstractly, does not appeal to them but when it is closely connected with the daily home life

they learn lessons such as the following: The choosing of simple lines in furniture; the consideration of use and beauty instead of mere showy useless ornamentation; a better taste in colors; a sense of the value of labor; and a delight in increasing power to do the things their active minds conceive. Also, they unconsciously absorb ethical lessons such as mutual helpfulness, patience, perseverance, exactness, generosity (giving of time and attention and service) and the insensible uplift of high ideals.

At the end of the year the class decided to present the miniature Home Beautiful to the little folks in Grade 1. As the little brothers and sisters of these Eighth grade boys and girls enter the primary room with what pride will they hear, "You look and see the rug I wove;" "I made some of that furniture;" or "I worked almost a week making the parts of that bed fit together!"

Going back now to my first question "Why do I teach drawing?" Is not the answer plain? Is it not to give the Eighth grade pupil an incentive to higher ideals in the home life; to teach such a love for harmony in color, line and arrangement that the inartistic, the ugly, shall slowly but surely perish from the face of the earth; to awaken a realization that underlying principles must be mastered and intelligently applied before work can result in anything worth while; and lastly to lead my children and myself to realize anew that sweet old truth, "It is more blessed to give than to receive?"

LOUISE K. MORSS
Massachusetts Normal Model School
Hyannis, Mass.

POTTERY CRAFT IN SCHOOL

I

EQUIPMENT

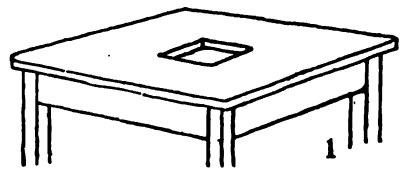
THE essentials of equipment necessary to any craft are in the beginning very few. It is best to start with a rather modest plant, one composed of tools and furniture needed for typical exercises, and thoroughly learn their possibilities. Afterward, special tools, conveniences and more ample provision can be secured. The reason for this conservative beginning is that at first one ought to bend every energy toward the mastery of fundamental problems and a varied and sympathetic acquaintance with the material of a given craft. One should know how to do things with simple tools. Too many aids and elaborate equipment are confusing to children and teach them to depend upon tools and machines for work which ought to be accomplished first hand. It should be the aim of every teacher to lay bare the simple processes of a given craft and teach them in proper relation without the many variations and refinements known to the skilled artist. The equipment for pottery work need not be elaborate, but it should be good, that is permanent, the kind which will last.

The Room. Given any well lighted, well ventilated room with running water; one needs (a) enough plain tables to accommodate the class, (b) a closed closet with shelving to hold unfinished work and keep it moist, and (c) shelving, preferably, inclosed to hold finished pieces.

It is only necessary that the tables be strong, with unvarnished tops. Common kitchen tables are excellent. If one can afford it, the table may be especially made in substantial fashion, either mortised or fitted with draw bolts, and having the top well secured so it will not warp. This top should be quite thick. It is wet a good deal of the time. A square table

is most convenient in form. It may have an opening cut in the center to receive a shallow pan which will be found very convenient to hold bits of clay, tools, etc., during the lesson.

The table suggested, Fig. 1, will accommodate four pupils. It occupies less room per pupil than individual tables or modeling stands, and is not so unwieldy and awkward as a single long table for the whole class. The top should always be level for pottery work. For modeling from casts and other representative work one uses slates or small boards which can be slanted as desired.



It is frequently necessary to have the pottery class in a room used for other purposes, as weaving, shop work or drawing: this is to be avoided, but these ordinary tables can be used for a variety of craft purposes beside pottery making.*

The closet for unfinished work should have shelving 12″ wide and about 12″ apart. Each shelf should be painted white on the edge and divided into spaces of 12″ or so, and each space numbered. Each pupil has a space during his attendance in the class. After the lessons, all unfinished work is placed in this closet and at the close of the day is covered with damp cloths. Clay may be kept moist for several days if an additional covering of oil cloth is used. Such a closet, which could be built in any room, is ample for all elementary school needs. Of course the more air-tight it is the better.

For more advanced students, the ideal repository is a series of zinc-lined cabinets with well fitted doors like those of an ice-

*If cost is a factor, the simplest table is a simple top resting on horses or other movable supports. This is a very convenient arrangement for evening school work when the equipment has to be removed after the session.

box. The bottom of each cabinet is covered with a thick (2″) layer of plaster of Paris, which when well moistened keeps the whole interior damp, and proper to preserve unfinished work indefinitely.

A small cabinet of this sort is good to hold moist clay for class use. A cheaper bit of furniture and one just as satisfactory is a heavy box lined with zinc, with a well-fitted cover, hinged or otherwise. The box should be rather well made to keep out the air, because most school rooms are warm and dry.

Finished work may be preserved on stout shelving. If this is enclosed it looks better and prevents dust and breakage. It is better still to have sliding doors than swinging ones, which are unsightly and in the way.

There should be several open shelves on which to leave finished pieces until they are dry. Clay must be absolutely free from moisture before it can be burned.

The lighting of the rooms used for handwork of any kind should be the best possible. If the pottery room must be a dark one or in the basement, the gloom can be somewhat lessened by means of a light tone on the walls and ceiling.

Running water in the room is almost a necessity.

A potter's wheel is not needed in the elementary school, save for purposes of demonstration. Children cannot use it.

The Kiln. The best kind of kiln for amateur and school use is one employing kerosene for fuel. The "Revelation" kiln, made by H. J. Caulkins & Co. of Detroit, Mich., has been found to be generally satisfactory. The "Excelsior" kiln made by the Hinz Manufacturing Co., Detroit, is also of the kerosene type and promises well.*

*The two kilns mentioned are the only ones known to the writer which have proved worth while in constant use. There are others which are without question worthless. One ought to see any new kiln in actual operation and compare it with one of the above two, before making a choice.

Damp Closets. State College of Ceramics, Alfred, N. Y.

To use these kilns properly one should connect them with the furnace flue in the school basement. The connection should be made with heavy pipe lined with fire clay. It is very important to have good steady draught. The kiln should rest on a brick or concrete floor.

As to size, the larger ones are best and most economical in the end. A small kiln will fire more quickly but there is in such a one a very small zone of even temperature in the muffle or oven. A larger kiln (like No. 6 Revelation) has a generous volume of flame and with proper management the muffle has about the same temperature throughout. This No. 6 is a convenient size for school use. It will cost about $200 by the time it is in place and ready for use.* A kiln once installed is like a piece of good machinery; it should last for years, and will, with care. Of course if one spends good money for equipment, one desires to receive in return the best appliances, with the expectation of producing not only real pottery but good, perfect ware. But perfect ware is not the only aim worth while. The processes themselves, as glazing and burning, are interesting to children, even if done in a crude way, and at the early stages of study, pottery making as a type of manufacture is more important than the production of artistic ware. For this purpose it is quite possible for the class to build a kiln in the school yard or basement.

The Brick Kiln. The plans here given were made for a pottery class at Bradley Polytechnic Institute in 1907. The kiln was built and used by the class. The drawing was made in detail to show brick courses. In general, every kiln possesses three essential parts (a) A fire box or burner; (b) an oven or

*There are smaller kilns costing from $80 up, but the size given is the smallest which will do first-class work.

muffle through which or around which the flame passes; and (c) an outlet into the chimney or flue.

This kiln was designed to use soft coal as fuel so the fire boxes were made deep, acting as retorts in which the coal burned slowly, setting free the several gases which take fire in their passage through the oven. Wood might be used as advantageously as coal, with this same arrangement. It would be very easy to use kerosene by making the fire box very much smaller.

A kiln built by a summer class at Bradley Institute, Peoria, Ill.

The inside of the fire box, flues to the oven, and the inside of the oven itself should be lined with fire brick. The rest of the kiln can be made of common red brick. The chimney ought to be about 13 feet high about the crown of the kiln. It can be made of common stove pipe.

Of course in a structure of this kind the flame, including more or less impurity, cinders, etc., passes through the oven

and, if glaze is to be burned, the pieces must be set inside clay boxes made for the purpose. These boxes are called saggers, and should be made of very refractory material—fire clay mixed with broken fire brick (grog). Unless one wishes to go into the subject deeply, saggers are unnecessary. The building and firing of the kiln by the class are the main things. Such pieces as flower pots, fern boxes and tiles can be burned in the open flame* and the class can learn more about pottery in this way than in years of study without contact with the actual operation of a kiln. Here the whole process is open, and there is a pronounced satisfaction in doing the whole thing.

Tools and Appliance. The list of these will be sufficient now as their uses will be shown in the course of subsequent papers.

6 large yellow ware kitchen bowls.
6 doz. common school slates. Modeling tools for the class; one kind is sufficient.
1 pair scales, with weights from 1-2 gramme to 100 grammes.
1 stoneware mortar (9") and pestle. Plenty of heavy (160 lb. weight) jute Manila paper cut into 9 x 9 squares or larger.
1-2 doz. small sponges.

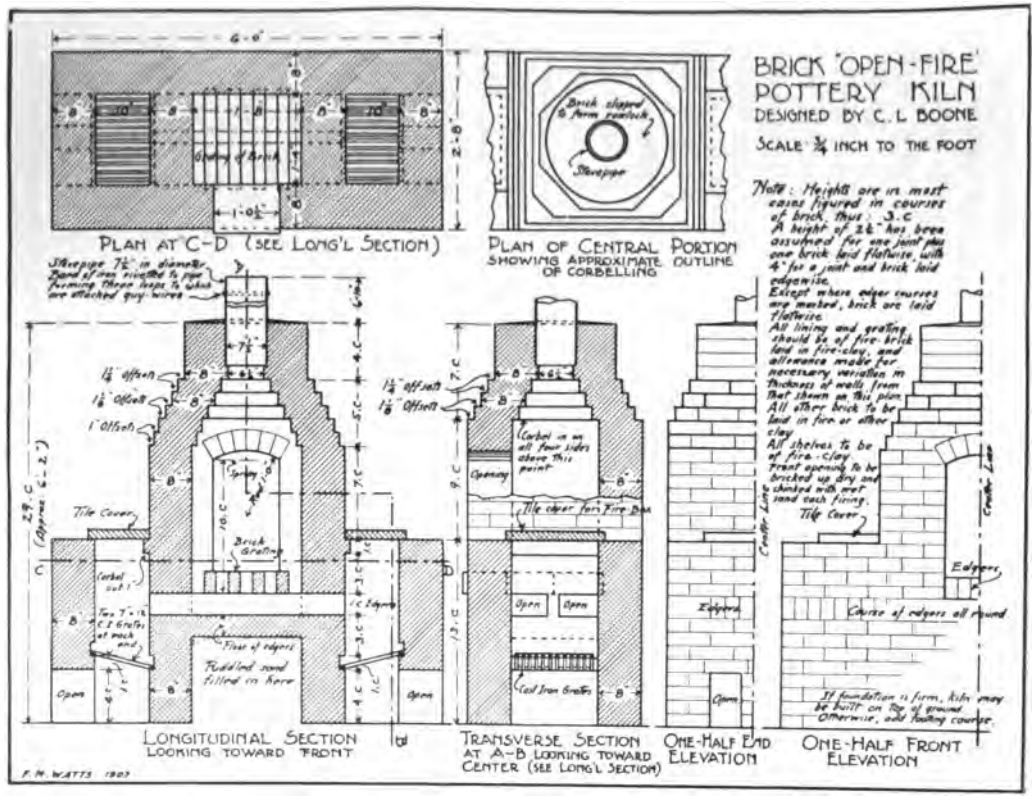
GLAZE MATERIALS†

15 lbs. felspar.
15 " whiting.
15 " Florida kaolin.
20 " white lead.
10 " French flint.
2 " oxide of tin.
1 " yellow ochre.
1 " red oxide of iron.
1 " burnt umber.
1-2 lb. white oxide of zinc.
1-4 " black oxide of copper.
1-4 " black oxide of cobalt.
1-4 " green oxide of nickel.
1-4 " whiteoxide of antimony.
1-4 " black oxide of manganese.
1-4 " carbonate of manganese.
1 " gum tragacanth.
2 doz. pyrometric cones each of Nos. 07-06-05-04—03-02.

It is quite worth while to make one's own glazes. They are more satisfactory than those one buys, costing less and offering a delightful field for experiment.

*It is quite possible to burn bright glaze in the open flame, though the results will lack somewhat in finish. But the experiment is interesting and profitable.

†These things and most pottery materials can be purchased from B. F. Drakenfeld & Co., 27 Park Place, New York City.


BRICK 'OPEN-FIRE' POTTERY KILN
DESIGNED BY C. L. BOONE
SCALE 3/4 INCH TO THE FOOT
PLAN AT C-D (SEE LONG'L SECTION)
PLAN OF CENTRAL PORTION SHOWING APPROXIMATE OUTLINE OF CORBELLING
LONGITUDINAL SECTION LOOKING TOWARD FRONT
TRANSVERSE SECTION AT A-B LOOKING TOWARD CENTER (SEE LONG'L SECTION)
ONE-HALF END ELEVATION
ONE-HALF FRONT ELEVATION
F. M. WATTS 1903

Kilns similar to the one here shown have been built and operated on several occasions by the fourth grade boys in Montclair, N. J.

The Kind of Clay. The best way to find a clay for pottery making is to test those available by making pieces and burning them. For school work, clay must be plastic and tough enough to work well in the hands of children. It should not shrink so much that it cracks badly in drying or burning. Such a clay should burn at cone 04 to a rather dense body,—that is, the burned body should be quite hard and not easily chipped with a knife or steel point. At this point, clay may not be impervious to water and glazing may not make it so, but, still harder burning will bring it to the point where it begins to vitrify when it will hold water satisfactorily. Some clays vitrify easily, others not; and only experiment by burning various accessible clays to various temperatures will show what one to use. Two or more clays may be mixed to lower the fusing point. The addition of 4% or more of burnt umber to clay will make it much more fusible.* Some brick clays, burning to a red or buff color make charming pottery, but they are likely to be hard to work by hand, and may contain a good deal of grit and impurity.

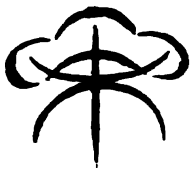
Cost. A room equipped for pottery making, along the lines already indicated, including the kiln, will cost from $300 to $400. An additional $100 would add much to the appearance and permanent character of such equipment. It must be kept in mind that this initial expense will never need to be duplicated. It will cost not more than $100 per year to maintain such a plant for ten classes of twenty pupils.

CHESHIRE L. BOONE
Montclair, New Jersey

*Stewart & Co., 505 West 50th St., New York City sell a modeling clay which works well in modeling and burning. A good clay is also supplied by the Western Stoneware Clay Co., Monmouth, Ill.

If clay cannot be obtained ready for use, (moist) the preparation for a few classes is not a difficult matter. Directions will be given later.

WHITE SILHOUETTES



A type of Japanese handicraft but little known as yet in America is shown in the plates reproduced as illustrations for this article. They represent the work of the Japanese artist Jakuchu, who lived during the latter part of the eighteenth century and the beginning of the nineteenth. He first came into prominence in his own country by doing supremely well something that had long been fairly well done, namely, the making of brush drawings of the rooster. In the minds of cultivated Japanese his name will always be associated with that picturesque bird. Not content with this reputation, he set himself the task of drawing plant forms supremely. A glance at the plates will show that he broke away from the conventionalities of his time and, selecting original subjects, rendered them with a boldness of treatment and a brilliancy of composition unrivalled in the whole realm of Japanese art, except by the great Korin himself, whose work is so different in technique that the masterpieces of the two men are hardly comparable.

The means by which Jakuchu produced these results are extremely simple. He cut his designs upon stone blocks with a chisel just as ordinary memorial stones with incised letters are cut by the stone-cutters of the present time. These stone slabs were then covered with a preparation of India ink and from the stones the prints were pulled.

The grain of the stone gives a fine grayed texture to what would otherwise be the solid black of the background, and by his unusual emphasis of the defects in leaves caused by the ravages of insects, the artist has succeeded in working spots of dark into his lights to still further bring the pattern into harmony. It will be seen that Jakuchu was also fond of making use of the insects most intimately related to the plants, as appropriate

Plate I. Stone prints from flower sprays -Jakuch.

Plate II. Stone prints from fruit sprays—Jakuchu.

Plate III. Stone prints from vegetables—Jakuchu.

accessories. No accident of growth comes amiss with this master; everything is utilized with a sure taste and with a strong hand. There is not a weak line in one of his drawings.

松木喜八郎

Plate I shows Jakuchu's handling of the more conventional material, the material most frequently used by Japanese artists. Plate II shows portions of vines and shrubs with the late autumn foliage and ripened berries. Plate III shows studies almost peculiar to Jakuchu, the decorative arrangement of vegetables of large size.

Work of this sort ought to prove suggestive to children who are working with the fall fruits. While the drawings are not pure silhouettes, they present a consistent character and are full of interesting detail.

Kihachiro Matsuki

Boston, Massachusetts

T. T. BLAYLOCK

ULYSSES DERIDING POLYPHEMUS

by

JOSEPH MALLORD WILLIAM TURNER

"O set the sails, for Troy, for Troy is fallen,
And Helen cometh home;
O set the sails, and all the Phrygian winds
Breathe us across the foam!
O set the sails unto the golden West!
It is o'er, the bitter strife.
At last the father cometh to the son,
And the husband to the wife!"

Phillips.

TEN GREAT PAINTINGS

IV

ULYSSES DERIDING POLYPHEMUS

By JOSEPH MALLORD WILLIAM TURNER

AMONG the many happy surprises the National Gallery of London gave me, that first ever-memorable visit, years ago, none was greater, none more thrilling than this, the vision of Ulysses Deriding Polyphemus. I had heard of it, but had never seen it, even in photograph. In that twenty-second room, full of masterpieces by Turner, made so familiar to me by the writings of Ruskin that I could dispense with the guide book, I found my eyes returning more and more frequently to this canvas, and at last resting there alone. And now, whenever I happen to be in London, I feel the tug of this picture more strongly than that of any other object in the city. Westminster with its splendors, St. Paul's with all its majesty, the British Museum with its incalculable wealth of treasure, cannot draw me to itself so quickly. My first fane is the National Gallery, my first shrine, the Ulysses.

In the presence of the original, the magic of the master transports me at once "in Ulysses' red-cheeked ships (some god our guide, into a quiet harbor." Before me at the left I catch the gleam of "the spring of sparkling water flowing from beneath a cave around which poplars grew." At the right are the "beaked and dark-bowed, well-benched ships" of Ulysses' companions, waiting together. The whole ninth book of the Odyssey, in fact the whole Homeric world lives again. That pierced crag, the rude triumphal arch of some sea god, I've seen off Capri; but the wooded slopes beyond, rising upward and away through the mists of the morning to the far peaks lost in crimson cloud, seem to be the land "not held for flocks and tillage, but all unsown, untilled, forevermore, where vines could

never die." The trusty comrades of the hero are "in their places at the pins, and sitting in order, smite the foaming water with their oars." The ship is ancient; but to this day in Egypt the sailors may be seen climbing like cats upon the great curved spars of the Nile boats as these men climb upon Ulysses' ship. Dolphins still leap beside the ships in Adria, but here the sea-nymphs sport among them, with white arms gleaming in the spray beneath the ship's wet bow. Men still see the sun flame upward over the Ægean, but only here are the fiery steeds of Apollo's golden chariot visible to mortal eye. Sea and shore are of this present world, but above them, dim and vast, writhes Polyphemus, "not like a man who lives by bread, but rather like a woody peak of the high hills seen single, clear of others," a part of that other world where the bright gods abide, seen clearest by blind Homer.

It is this combination of elements from the outer and inner world, this charging of the commonplace with the message of the spirit, that makes all myths, writes all enduring poems, paints all great pictures. Turner in the realm of painting, rivals Homer in the realm of words. Into a few dead facts both have infused the ichor of immortality, and "high-born ready Odysseus" lives now in his magic world, audible and visible, forevermore. There he stands, high on the deck of his golden galley, "calling aloud out of an angry heart: 'Cyclops, if ever mortal man asks you the story of the ugly blinding of your eye, say that Odysseus made you blind, the spoiler of cities, Laertes' son, whose home is Ithaca.' "* Ah, those days of toil with the classics at Brentford school, disappointing as they were to the ambitious barber and his extraordinary son have borne celestial fruit.

The composition of the picture is in one respect unique. The great fan of light radiating from the sun at the right, is

*The quotations are from Professor Palmer's fine translation of the Odyssey.

balanced by a fan of line radiating from the hold of Ulysses' ship at the left. These two fans are perfectly related to one another. Mass is balanced by vista. In the print the sunrise monopolizes the attention; not so in the painting. In the painting Ulysses holds first place, a he ought. This seemingly impossible primacy of so small a feature is brought about by means of color. As brilliant as the colors of the sunrise are, they are not so brilliant as Ulysses! The blues and purples and reds of the picture complete their sequence in the vermilion of his armor; the hues of white, yellow, and orange, lead the eye again to the hero, and find their climax in his flaming torch. The whole color scheme is focused in this one little spot of absolutely pure color. Ulysses glows like a live coal.

The reproduction in black and white, even the best carbon photograph, gives but the faintest echo of the original, for it is, primarily, a masterpiece in color.

Turner's chief aim seems to have been the conquest of the sky, the representation of the atmosphere under every possible condition. His pictures deal with space, space filled with sunshine, gloom, vapor, mist, cloud, rain; space filled with calm and storm; space exhibiting every possible color in infinite variety. The features of the landscape, modified, moved about, transformed by his opulent imagination, were merely the pegs upon which he hung the splendid robes and veils of color, woven by the fingers of the light upon the loom of air.

This picture, Ruskin says, marks the beginning of the master's central period of power. The sky is "beyond comparison the finest that exists in Turner's oil paintings." It is wonderful! No words can describe it. If words can help at all one who has not seen the original, the words would be Ruskin's, written in the presence of another picture by the same master, but applicable here: "The whole sky from the zenith to the horizon

becomes one molten, mantling sea of color and fire; every black bar turns to massy gold, every ripple and wave into unsullied, shadowless crimson and purple and scarlet, and colors for which there are no words in language and no ideas in the mind,—things which can only be conceived while they are visible,—the intense hollow blue of the upper sky melting through it all, showing here deep and pure and lightless,—there modulated by the filmy, formless body of the transparent vapor, till it is lost imperceptibly in its crimson and gold." And Ruskin adds: "There is no connection, no one link of association or resemblance, between those skies and the work of any mortal hand but Turner's." If that statement isn't true, it is so near the truth that the margin isn't worth an argument.

But why so much emphasis upon the sky, in a picture of Ulysses? For the same reason that there is so much emphasis upon the sky in the picture of the Old Téméraire. Turner saw his beloved skies as typical. The "Téméraire," a ship of the line, which finished a warrior's career gloriously at the battle of Trafalgar, leading the van in Nelson's division, and breaking the line of the combined fleets, was being towed to her last berth by a fiery little steam tug. "There's a fine subject, Turner," said Clarkson Stanfield. Turner made no answer at the time, but the next year exhibited the picture. He saw in the incident the last of the wooden navy. To his mind it was the moment of the sunset of a glorious day in England's naval history. Had he represented the towing at any other time of day, it would have been commonplace enough, its significance would have been lost; at sunset its meaning was blazoned on the very heavens for all the world to read.

But the sky in the Ulysses is not a sunset! And to enforce that fact with the dullest observer, Turner has made visible the horses of the sun, leaping upward from the sea. It is sunrise. Why?

Dr. William T. Harris has said that Turner loved to depict conflict of some sort, conflict between sea and shore, sun and storm, light and darkness, man and the elements, but that he always chose the supreme moment when the war still raged but when the edict had gone forth that the celestial forces should conquer. This picture is a good example. Think of the ten years' war with Troy in which Ulysses had fought. Think of the years of wandering in which he had suffered beyond all other men. Think of the fearful experience through which he had just passed,—the fog, the night, the cave, the horrible nightmare of the monster's meal. But as usual the wit of Ulysses had saved his soul alive. The bright goddess, fair-haired Athena, never failed him at the critical moment. He has outwitted the giant. He has escaped to his ship. He is on his way home. Zeus wills it! The darkness yields. The rowers are at the benches, the sailors man the yards, an off-shore breeze springs up, the sails fill, flags of victory flutter out, the sea nymphs show the channel to the open sea, it is MORNING! Light has conquered again,—the light of the world, and that finer light that lighteth every man that cometh into the world.

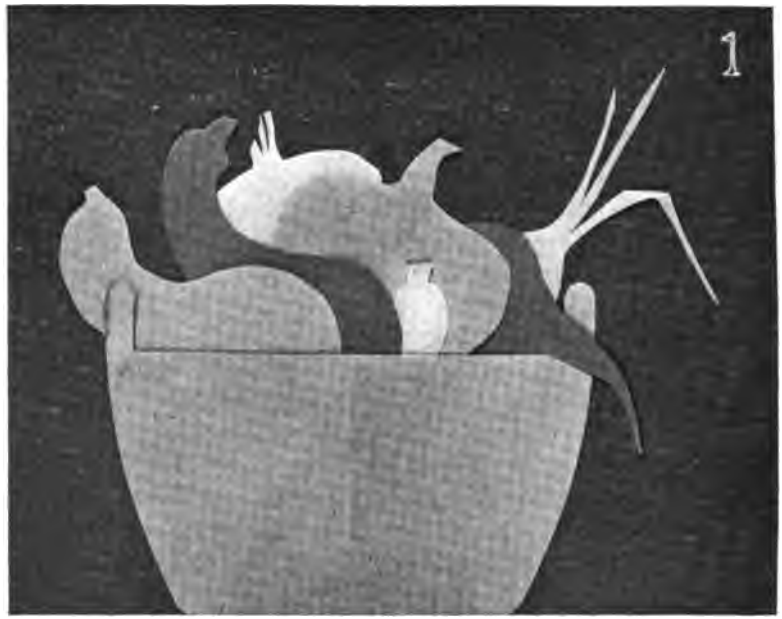
I have the finest brown carbon photograph of this picture obtainable, large size, hung where I can see it every time I look up from my desk. From all the pictures ever painted I have selected this for my constant companion. To me it embodies the whole history of the human spirit, past, present and future, in one supreme vision. Long-tried, royal Odysseus is man in his struggle with nature, man in his warfare with ignorance, the Son of Man in his fight with sin and death, my own best self in its lifelong battle with everything adverse. By the help of his god Ulysses won. Why not I with the help of mine?

HENRY TURNER BAILEY
North Scituate, Massachusetts

ANNOTATED OUTLINES

NOVEMBER

THE outline of lessons for October called for the first work of the year in Constructive Design and Structural Drawing. That work was very simple in character, a little paper cutting in the primary grades, and the beginning of lettering in the grammar grades. This month the constructive work will advance



Silhouette of vegetables cut from paper of appropriate colors and arranged in suggestive groups. First grade pupils.

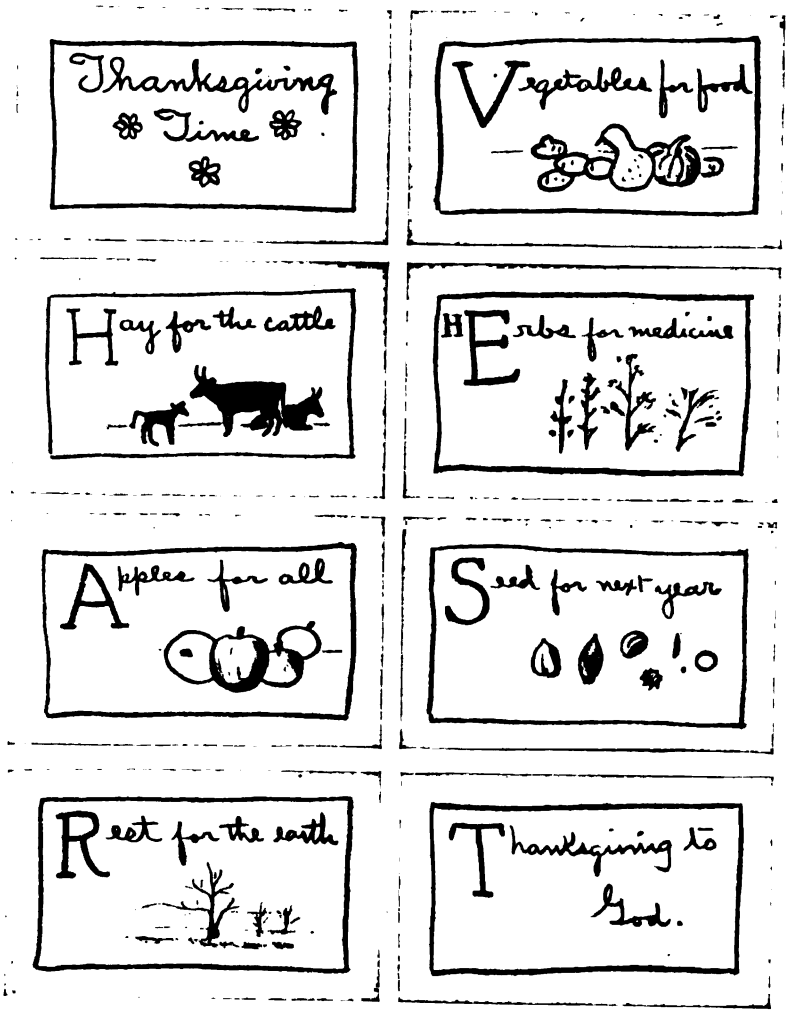
in each grade with paper or cardboard as the material, and next month with cloth and wood as additional material. The lettering will be applied constantly.

Let me repeat again the oft repeated statement that the particular lessons outlined herein are to be used only in case the teacher cannot find better ones suggested by the daily work, interests, and needs of her own pupils. The Chart, supplement to the June number, gives the essentials.

Silhouette of fruits cut from paper of appropriate colors and arranged in suggestive groups. First grade pupils.

PRIMARY

Aim: To lead the children to become familiar with geometric elements and terms, to attain skill in the use of pencil, ruler, scissors and knife, and to produce more attractive primary school work.



The eight pages of an acrostic booklet drawn in colors. Second grade pupils.

FIRST YEAR. (U)* **Cut from colored papers the shapes of common fruits and vegetables.**

The papers may be colored papers or papers colored by the children to correspond with the typical colors of the objects to be cut. In cutting, have the children think not only shape, but relative sizes. Try each object several times. When the objects are cut out they may be arranged in various suggestive ways,—in heaps, in rows upon shelves, the vegetables in a basket, Fig. 1, the fruit in a dish, Fig. 2. To arrange these to make a pleasing whole requires no little thought. Each child may make a basket or a dish-full, or children may work together in rival groups. Let the language work of the month lie in with this work in colored silhouettes.

SECOND YEAR. Make a booklet appropriate to the season.

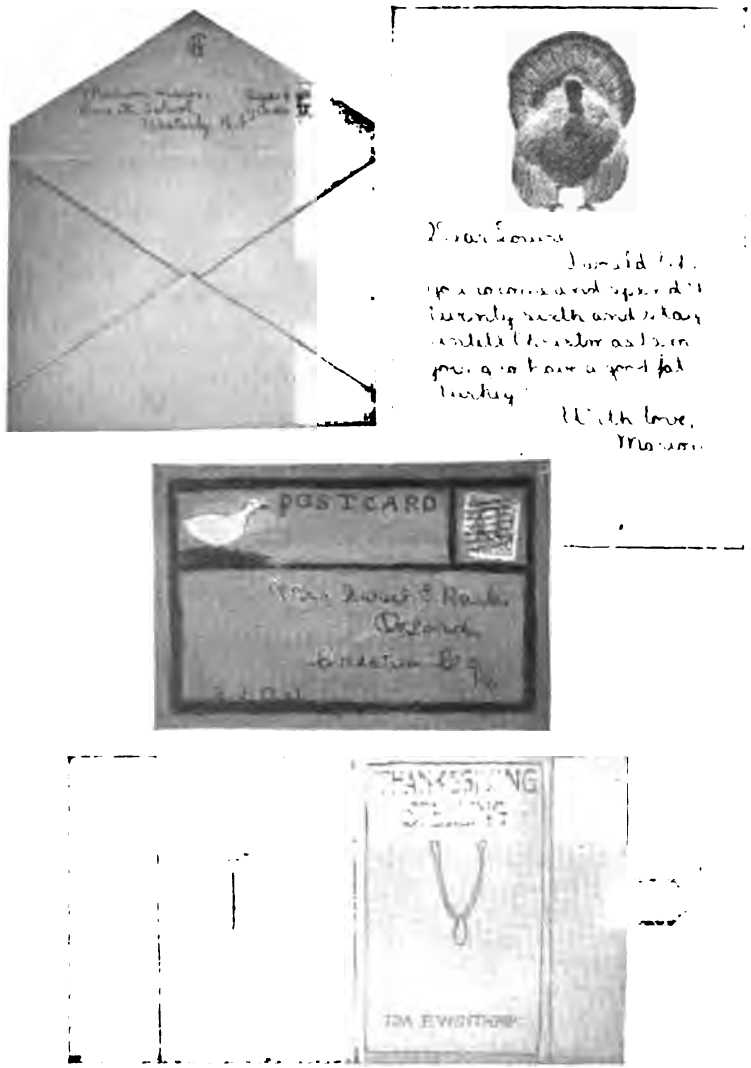
From two sheets of drawing paper, 9 x 12, have each child cut for himsels four pieces 3 1-2 x 12, and fold these to make pages 3 1-2 x 6. By meanf of stout thread, bind these in the usual way, sewing through three holes in the crease. Measure and draw lightly with the ruler, the margin lines on each right hand page, one-half inch from the edges.

The subject of the booklet may be anything appropriate to the season, and involving drawing and writing. I suggest an acrostic booklet "Thanksgiving Time," the initials on the seven pages spelling the word HARVEST. See illustration on opposite page. The text may be in brown, appropriate to the season, and the illustrations in color. At last go over the margin lines with a good strong freehand line, the color of the text. The initials might be in brilliant orange.

THIRD YEAR. (U) **Write a Thanksgiving greeting, invitation, or letter, and make an envelope in which to mail it.**

The envelope would better be made first. It may be of some special paper, or of the regular drawing paper. The construction of the envelope may be any with which the teacher is familiar. Get the pattern from any ordinary envelope, and have the children draw a similar flat from dictation, omitting all curves. When the envelope is made get out a card or letter to fit it. Better make two or three, so that the best may be at last selected for mailing. The plate on page 142, shows an envelope and a letter made last year by Marion

*This letter indicates the work most likely to be suitable for the two divisions of ungraded schools.



Objects appropriate to the season constructed from paper by third grade pupils.

Hiscox of Westerly, R. I., and also the face of a post card made by Emma Moore, Kennett Sq., Pa. Make the letter attractive with appropriate symbols. Space it thoughtfully. Color it delicately. The plate shows another problem suitable to this grade, a "Thanksgiving Spelling" folio, that came to me three years ago from Ida F. Winthrop, Fitchburg, Mass. It contained neatly written sheets of spelling, words appropriate to the season, made during the two weeks previous to the festival.

GRAMMAR

Aim: To develop intelligence, taste and skill in handicraft, the sort of handicraft appropriate to school life.

FOURTH YEAR. (U) Make a portfolio of Thanksgiving pictures.

The collecting and making of the pictures should begin as early as possible. Have cards of uniform size and color as mounts. The size will be determined, of course, by the pictures collected or drawn. The pictures may be historical, autumnal, local, serious or comic, according to circumstances. They may be made the subject of language lessons, and the text written in a leaflet, size of the mounts, and kept with the pictures in the portfolio. The size of the portfolio, and its thickness will be determined by the pack of mounts. The construction is shown with sufficient clearness in the plate, page 144. The cover design for this portfolio was made by Margaret C. Zoudlick, Easthampton, Mass. One of the pictures was by Margaret, but the others came from other portfolios submitted in previous contests. Give special attention to good lettering. Use some one hue of color for letters and symbol. Make an original symbol, appropriate to the character of the pictures.

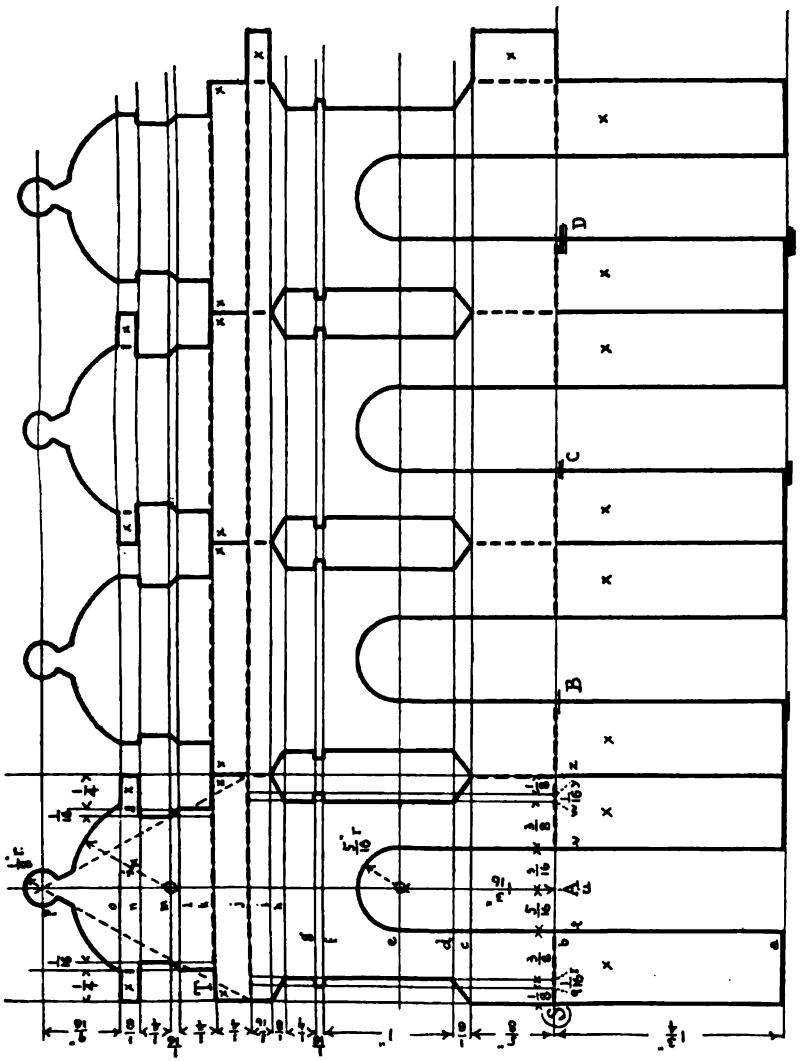
FIFTH YEAR. Make from paper or card some illustration of the work in language or history appropriate to the season.

Among the subjects available are the Common House, the Fort Meeting House,* the stockade, Pilgrim chairs, tables, and other furniture.† For this Outline I have selected the Plymouth Rock Monument, or the Canopy over Plymouth Rock. The smaller architectural details are omitted. The flat is

*See the Thanksgiving Packet, published by the Davis Press.

†Pictures of these are to be found in Bacon's Historical Pilgrimages in New England, and in the school Histories

Thanksgiving pictures mounted and drawn on cards of uniform size. A case in which to keep them. Fourth grade work.



Flat of the Plymouth Rock canopy monument, Plymouth, Mass

given on page 145. It looks complicated, but fifth year children like to work out complicated things in which they are interested. This flat is easy for anybody who will pay attention and be thoughtful and accurate. Begin at point S. Draw a light vertical and horizontal through this point. Lay off on the vertical, in order, all the vertical dimensions, and mark the lines in order, as shown, a, b, c, d, etc. Lay off on the horizontal the dimensions given, marking the lines q, r, t, u, v, w, y, as shown in the diagram. Repeat these measurements for the three other faces. Draw the outline of each face of the lower part of the canopy. On the line T, set off the points for the vertical lines which define the shape of the upper part. Repeat these for the three other sides. Draw the outline of the upper part. Cut on the full lines, fold on the dotted lines. Paste all the tabs, x, and the corners, x. The eight long tabs below make the solid floor of the canopy and leave the opening through which the Plymouth Rock is seen.* A photo-

Paper model of the Plymouth Rock canopy monument.

*Beneath this canopy, designed by Hammatt Billings and completed in 1867, may now be seen that portion of Plymouth Rock which has been made familiar by reproduction in miniature. In 1774 an attempt was made to remove the rock from the seashore to the foot

graph from the paper model is reproduced on page 146. Write something concerning the monument, in the form of a booklet with well printed cover.

SIXTH YEAR. (U) Make a writing pad, or other useful object, using paper and cardboard.

The order is as follows: Decide upon the size, the materials to be used, and the style of decoration; 10 x 13 is a good size for the pad. Get out the cardboard 10 x 13. Get out the face paper 12 x 15, and cut the corners as shown in Figure 7, b. Paste the edges and draw the sheet smooth and tight. Get out the corners as shown in Figure 7, c; 4 x 4 is a good size. Fold the corners and paste the edges, fastening each securely in place. Get out the back paper, 9 1-2 x 12 1-2. Paste the edges, and place the paper, drawing it smooth and flat. If this paper is dampened

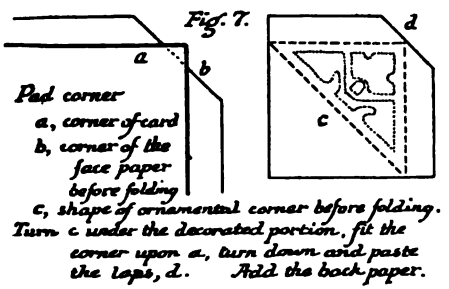
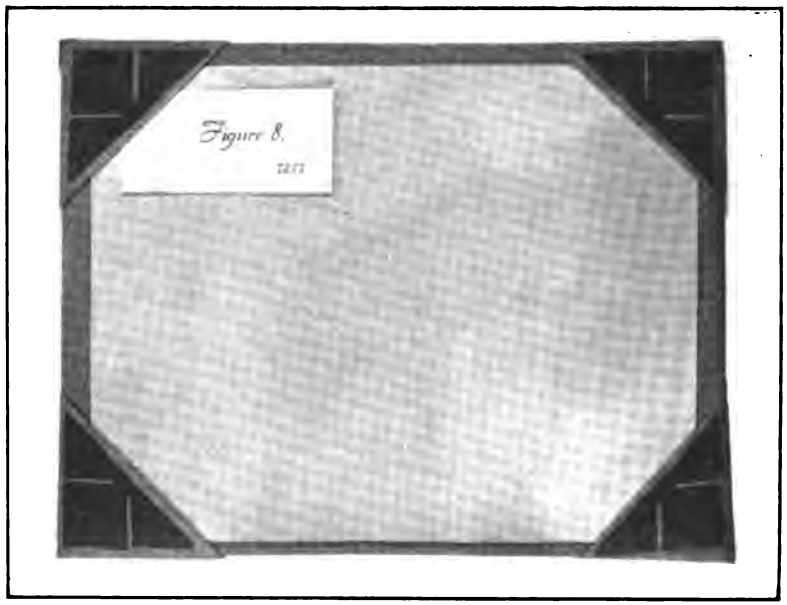


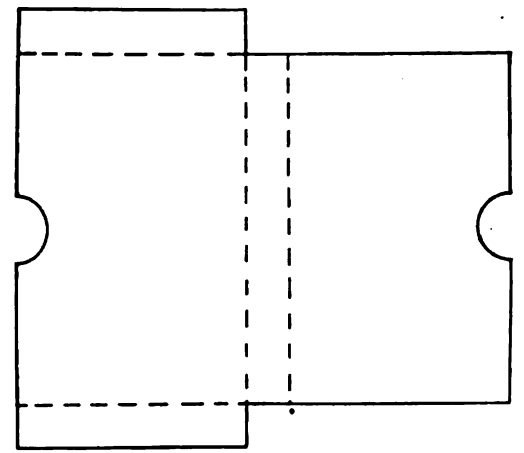
Fig. 7.
a
b
d
c
Pad corner
a, corner of card
b, corner of the face paper before folding
c, shape of ornamental corner before folding. Turn c under the decorated portion, fit the corner upon a, turn down and paste the laps, d. Add the back paper.

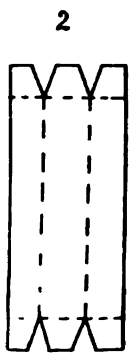
of the liberty pole in the town square of Plymouth, which resulted in the separation of the upper part of the rock from the lower. The separated portion was in the square until 1834 when it was removed to the front yard of Pilgrim Hall. The parent rock remained in its original position and in 1859 came under the control of the Pilgrim Society. That year the corner stone of the present canopy was laid. The canopy is of granite, fifteen feet square at the base and thirty feet high. Through an opening in the foundation beneath the canopy the lower part of the original rock was visible until 1880 when the separated portion was restored to its original resting place and now lies within the canopy reunited to the parent foundation. The rock is not now at the water's edge. The shore has been filled in for commercial purposes. The following incident is a fit subject for a mural decoration. In 1741 when it was proposed to construct a wharf which would entirely cover the rock, Elder Thomas Faunce, born in 1647 and therefore ninety-four years of age at the time, supposing that the rock was to be buried forever, was carried in a chair to the spot that he might bid it an affectionate farewell. He stated that his father, John Faunce, who came over in the Anne in 1623, had repeatedly told him the story of the rock as the first resting place of the feet of the Pilgrims. People are now living in Plymouth whose fathers and mothers saw Elder Faunce in his chair by the rock side. It might be interesting for the more advanced pupils to construct of paper a little rectangular box, 3-4 of an inch high, and just the right size to fit into the "cupola" of the canopy, for in the original monument there is a box of stone containing the skeletons of five of the Pilgrims, discovered in 1855 when some workmen were digging a trench on the slope of Burial Hill.

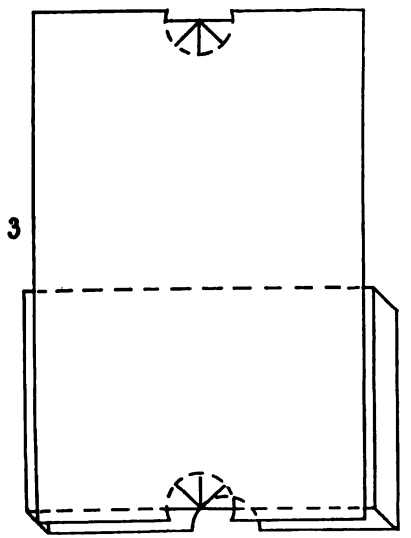


A writing pad made by Edith Crandall, Eifth Grade, Westerly, R. I.

A Thanksgiving table constructed and arranged by Lillian Allen, Dominican Academy Fall River, Mass







Cardboard case for a book. Diagram of parts and method of construction.

before the paste is applied to its edges it will dry smoother and tighter. Figure 8 shows a completed pad. It was made by Edith Crandall, Grade V, Westerly, R. I.

The furniture outlined for this grade last year proved to be well adapted to the grade. Figure 9 shows one of the tables, set for the Thanksgiving dinner, with plates of paper, and food modeled from clay, with a tissue table cloth and ornamented napkins of tissue paper. This was made by Lillian Allen of the Dominican Academy, Fall River, Mass.

Cardboard case for a book constructed by Michael Turano, Westerly, R. I.

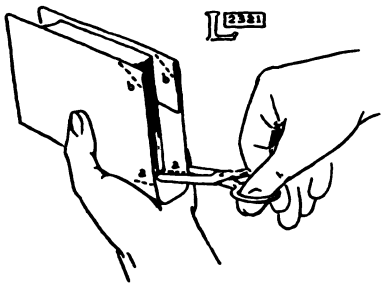
SEVENTH YEAR. (U)

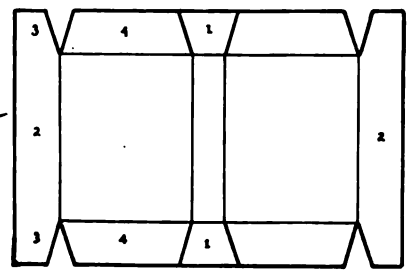
Make a cardboard case for a favorite book, and ornament it.

An article on how to do this appeared in the June number, 1905, by Mr. Virgil M. Hillyer of Baltimore. The method is evident from the diagrams, p. 149. Of course, the book to be protected by the case must be determined at the outset and the dimensions of the case obtained from it. Any ordinary cardboard will do. The covering should be stout colored paper, or better, the linen or buckram used by bookbinders. The illustration, Fig. 11, shows a book case made by Michael Turano, Pleasant Street School, Westerly, R. I. Insist upon good lettering upon the case, and a pleasing scheme of color.

If this problem can not be worked out for lack of material, teach the pupils of this grade how to cover a book in a substantial manner, using manilla paper. The method was described last year, and is illustrated here. The cover design and the design for the back may be drawn upon this cover, in brown.

EIGHTH YEAR. Make a notebook bound in boards, and place an appropriate and pleasing design upon its cover.





The book may be a blank book, or it may contain quotations, an essay, or any other work appropriate to the season.

The order of procedure is as follows: (1) Decide upon size of page, and kind of paper. Decide upon number of leaves and get them out. Cut a strip of thin but strong cloth (b, Fig. 12), about an inch and a quarter wide, and sew leaves and this cloth, (which is a substitute for binding tapes) firmly together as shown at g. Get out the covers of cardboard, an eighth of an inch longer at the top and an eighth of an inch longer than the leaves, at the bottom. Paste these to the tape an eighth of an inch away from the back (binding) of the leaves. Get out the back strip of proper width and length to look well, and turn over top and bottom as it should. Paste the tape and covers to this strip.

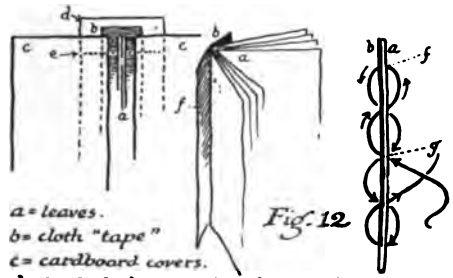
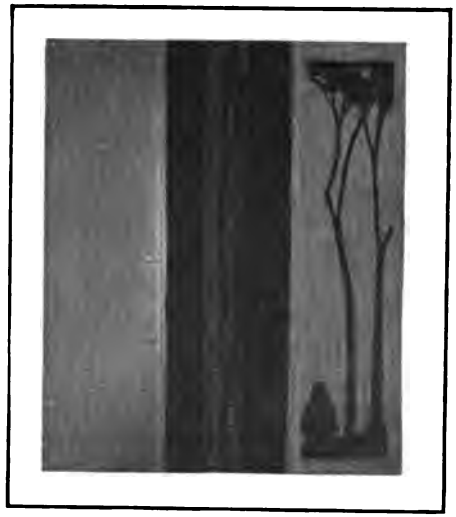


Fig. 12

a = leaves.
b = cloth "tape"
c = cardboard covers.
d = back cloth, to which the tape is securely pasted.
e = the position of edge d, when pasted to the covers.
g = manner of sewing leaves and tape together. To be drawn tight and tied at g.

Get out and paste on the outside cover papers, lapping them upon the back strip, and folding them over neatly and pasting them to the inside of the covers. Paste the first and last leaves down smoothly to form the inside cover papers,

front and back. Make the cover design with appropriate lettering. The illustration below shows a pocket notebook, made by Helen Merrill, of the Chicago Normal Training School. It is worth while to know how to make such a neatly bound book as this. H. T. B



The covers of a pocket notebook constructed by Helen Merrill, Chicago Normal Training School.

HIGH SCHOOL

FREEHAND DIVISION

The work of this month should be a combination of that of October and further consideration of the drawing of flowers, following this with landscape and finally combining landscape and flowers.

FLOWERS. In drawing the flowers of last month the characteristics of growth were to be closely studied and the pose or attitude of the whole spray shown with care. Much additional interest can be given this work by putting into

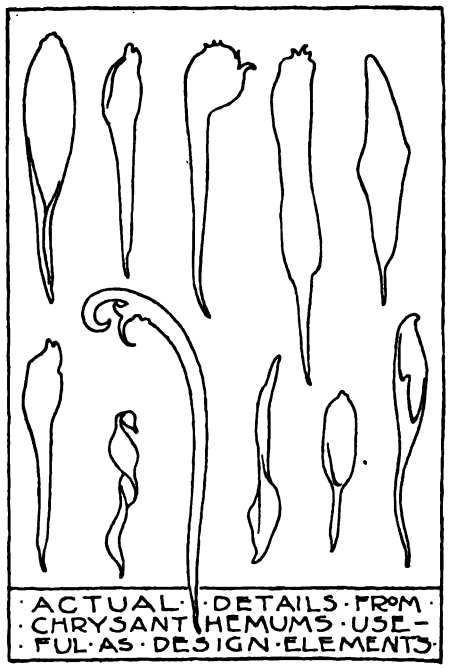
the same drawing a second flower branch of the same or a different kind, so placed as to compose well with the first, but rendered in this second instance in perfectly flat silhouette. The value tone given this silhouette, whether very dark, middle or light, gives decided interest to the whole picture, suggesting a more distant form dimmed by space, Fig. 13.

The use of the square or oblong finder is advisable after these drawings in unrestricted limits have been made; and well-composed portions, discovered by the finder, should be traced on rice paper. Several compositions can frequently be made from one flower drawing.

Advantage should be taken of the actual presence of flowers to search for beautiful details available for design. Forms of petals, stamens, pistils, seeds, pods, leaves and tendrils should be noted separately from the plant as decorative forms, pure and simple, and kept for design use. (See Fig. 14.)

LANDSCAPE. Studies of landscapes may follow those of flowers, ideas for them coming direct from nature where possible, and from photographs, prints, illustrations or blackboard drawings. Induce good compositions in amateur landscape photography among pupils. Excite rivalry by exhibiting results, with possibly some modest prizes. Use the best as motives for drawings with finder card aids. Have students collect landscapes from art catalogues, the "Studio" and other

A decorative arrangement in charcoal gray from the sow thistle by a high school pupil, New York City.



magazines, as well as study the available works of the best painters. Simplify portions of these within varying frame shapes and proportions, trying rearrangements of their elements. Let the final rendering be in flat tones after the manner of Riviere, Jules Guèrin, and the best German lithographs of recent years. The tailpieces in this number show such landscapes treated in black and white.

COMBINATIONS. The studies made under Flowers and Landscape may be combined with happy results by having the landscape form a background to the flower spray. Hamilton Gibson worked this out in a multitude of ways in his many articles to be found in old Harper's Magazines and in his charming book "Sharpeyes." The effect is got in nature by lowering one's eye-level to the upper portion of the flower spray which brings the landscape sky-line below the flowers. Masses of trees may be used as background material for the sprays,—all of these methods lending an outdoor atmosphere distinctly attractive and interesting. The alert teacher will find many ways of applying and varying these suggestions.

HAROLD HAVEN BROWN
Park Hill
Yonkers, New York

MECHANICAL DIVISION

Copyright reserved by the Taylor-Holden Company.

The course in mechanical drawing in a technical high school or a high school with a manual training department must be directly related to and should also largely determine the character of the work in the shops. It need no longer be taught as an absolutely abstract subject but may be made of vital importance in the development of thoughtful work and originality, thus awakening deep interest on the part of the pupil. He should find in it a means of expression, using it as he would a written language to record and convey his inventive suggestions in regard to construction. Appreciation of that which is adequate in construction, good in design and beautiful in form can readily find expression through the medium of a well-executed mechanical drawing. It shall be the purpose of this division of the high school course to outline a series of drawing plates which will be of service in the high schools mentioned as well as for those schools without the shop facilities and where the subject is taught for the purpose of meeting certain college entrance requirements.

The time allowed in which to make the complete series of plates should be five periods per week of forty-five minutes each, amounting to one hundred and fifty actual hours work in the forty weeks of the school year. This is the usual amount of time allowed in schools where manual training is also provided, therefore certain plates may have to be omitted in those classes where less time is devoted to the subject.

Plate I. Working drawing showing end and side views of cylinder together with perspective sketch of cylinder.* (Fig. 15.)

*All exercises and problems should be planned for a working space of 9" x 12" inside marginal lines.

Note. The alphabet illustrated in the October outline is suitable for titles or lettering on architectural drawings but for notes and dimensions the alphabet adopted for general shop or engineering practice, the style known as the Reinhardt alphabet, is considered much

Fig. XV.

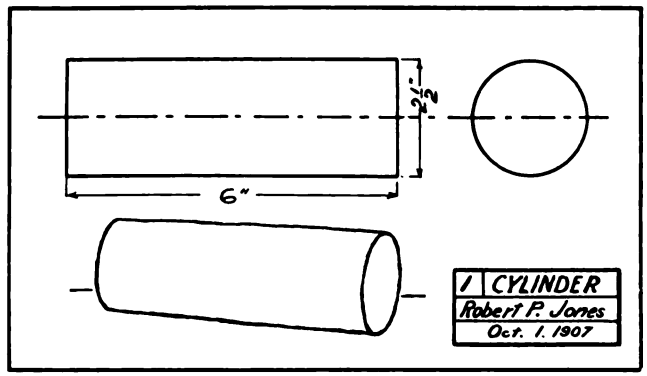
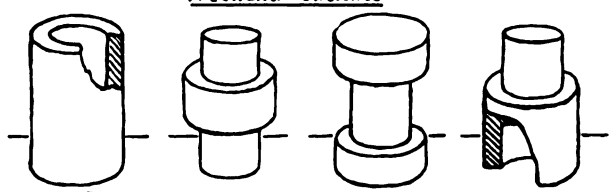


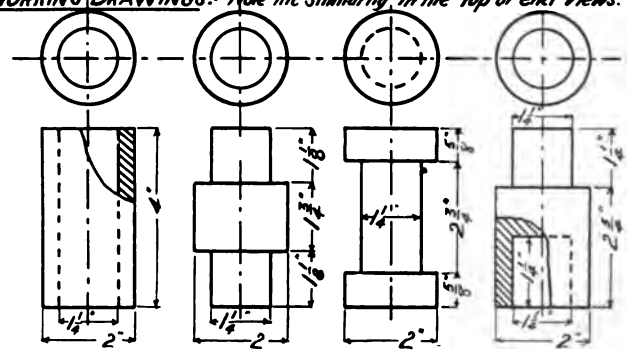
Fig. XVI.

— CYLINDRICAL OBJECTS —

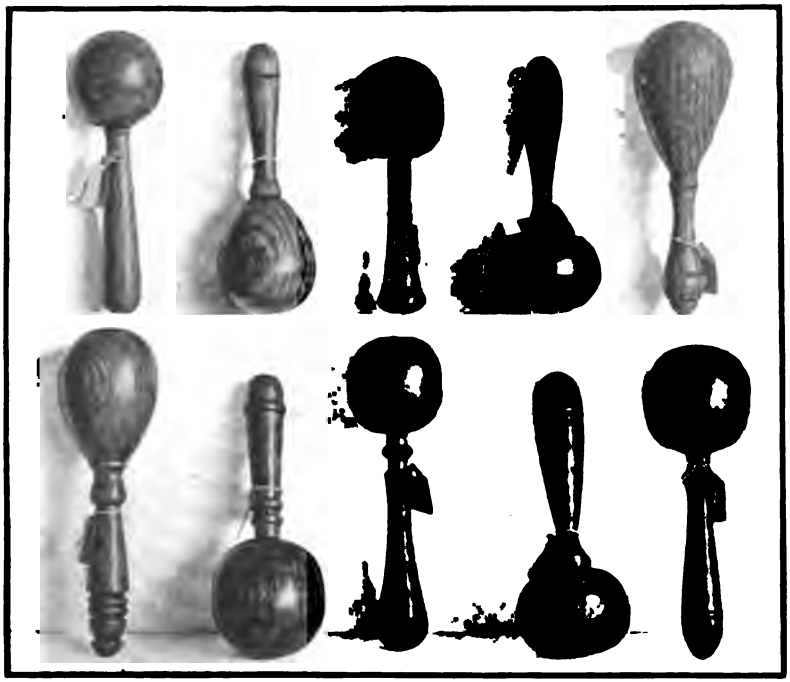
Freehand Sketches



WORKING DRAWINGS:- Note the similarity in the Top or end views.



From "Brief Course in Machine Drawing"
Permission: Taylor-Holden Co.



Darning balls designed and made by pupils in the Technical High School, Cleveland, O.

Plate II. Working drawings of cylindrical forms illustrated in Figure 16.

Plate III. Working drawing of a cylindrical form to be made in the woodturning shop. This is a design plate and the darning ball is suggested as a problem which offers excellent opportunity to teach good line and form.

---

better. This style of letter will be used on all drawings appearing with these outlines. An excellent description and plate showing its construction may be found in "The Universal Dictionary of Mechanical Drawing" by G. H. Follows, (Eng. News. Co. N. Y.) which should be in the possession of every teacher of the subject. For the best description of drawing instruments and the technique of mechanical drawing see "Mechanical Drawing" by C. L. Adams. (G. H. Ellis Co., Boston.)

Those illustrated in Figure 17 were designed and made by pupils in the Cleveland Technical High School. The design should be limited to the size of material used which ought to be 2 1-2 inches square by 6 1-2 inches long. Trace pencil drawing and make blueprint for use in the shop.

FRANK E. MATHEWSON
Technical High School
Cleveland, Ohio

PHILIP RUXTON, INC.

THE WORKSHOP

WOODWORKING

THE toys shown in my plans for this month are supposed to be adapted to very young people, but I have known older boys and girls and even grown-ups who enjoyed constructing them and making them go. Let's see if you do.

Then, too, they are not mere toys having no value save for play (although a good plaything needs no apology), but the color wheel illustrates the fusing of colors to produce others, and something may be learned from the stern-paddle boat about navigation on our shallow rivers and narrow channels.

The cutting on both these toys can be done entirely with the jackknife, but there is another little tool that supplements the knife and works a little faster in some places, although it can never take the place of the knife. It is called a coping saw and is shown in Figure 5 on page 160. The frame costs 20 cents and saws 10 cents a dozen. The saws are looped and spring into slits in the frame which is made of heavy spring wire, thus forcing the saw straight and tense. The teeth should always point downward for in the upright position in which we use it the cut is on the downward stroke.

For wood use 1-4″ bass-wood or soft pine, or even harder wood if it is at hand, such as cigar boxes.

COLOR WHEEL

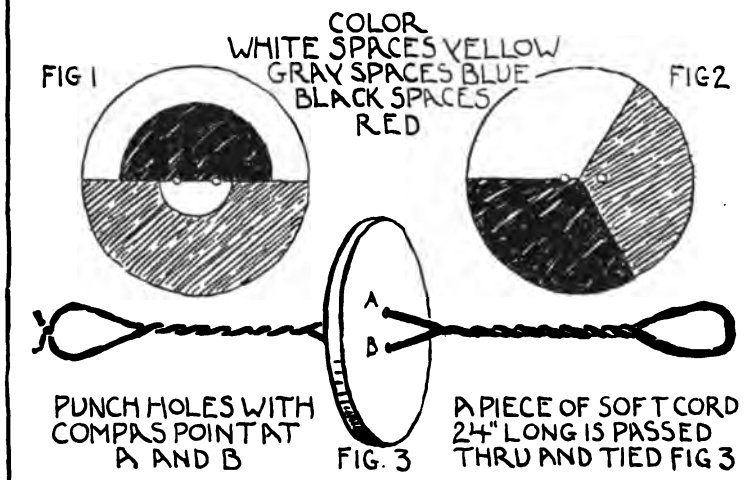
A piece 3″ square is needed, colored crayons, and 24″ of soft cord. The plan shows both sides with proportions of different colors. The larger circle, 3″ in diameter, is drawn first and sawed out. These saws are delicate and cannot be forced, for a sidewise twist will snap them easily. But, of course, no saw should be forced, but allowed to run easily and once the vertical movement is acquired cuts can be made rapidly.

After sawing out the disk, describe the smaller circles with 2″ and 1″ diameters on one side of the wood. The reverse is divided in thirds. Figures 1 and 2 show scheme of coloring. Figure 3 is an attempt to show how the cord twists up. The loops are passed over the thumbs or forefingers and by tightening and releasing the cord the disk spins and reverses itself. Just how to do this cannot be told. You'll have to try till you get it. When spinning of course the primary colors run together making the secondaries, orange, green, violet.

STERN-PADDLE BOAT

The plans for the boat explain themselves pretty well I think, but call for a word about sawing the square corners of the stern. When the saw reaches the corner keep moving it up and down in one place gradually turning the

A COLOR WHEEL



PUNCH HOLES WITH COMPAS POINT AT A AND B

FIG. 3

A PIECE OF SOFT CORD 24" LONG IS PASSED THRU AND TIED FIG 3

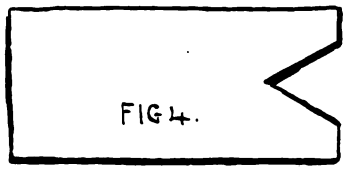
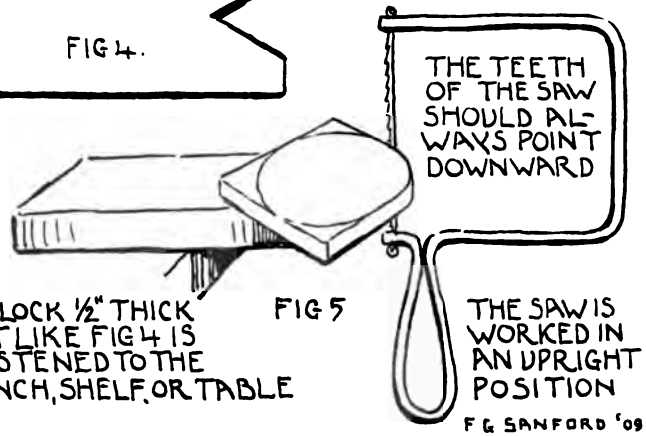


FIG 4.



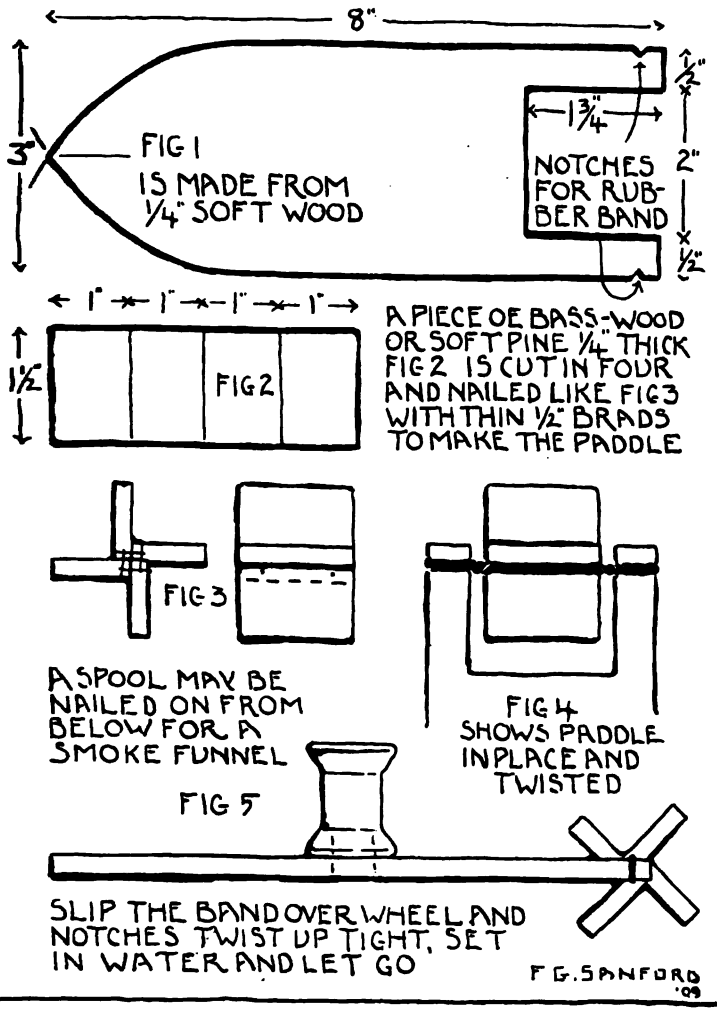
A BLOCK ½" THICK CUT LIKE FIG 4 IS FASTENED TO THE BENCH, SHELF, OR TABLE

FIG 5

THE SAW IS WORKED IN AN UPRIGHT POSITION

F G SANFORD '09

A STERN-PADDLE BOAT



wood until the saw faces on the other line. When the second corner is reached it will be necessary to back out and make the last cut from the outside.

Nailing the pieces of the paddle together is a little fussy but so little wood is used that one can afford to split several pieces. A very thin brad or small pin is necessary.

The band which furnishes the motor power should be a thin one. A large band unwinds so quickly that the power is lost, but the light band held back by the resistance of the water will send the boat several feet. The writer hopes that others will find these little problems as useful in the shop as he has.

FRANK G. SANFORD
Oneonta, New York

WEAVING

TWO-STRAND RUG

Where classes are large, it is better to teach the steps of weaving, the joining of threads, the finishing off, and removing from the loom, to groups rather than to individuals. As far as possible keep the pupils together in their work. Let the fast workers help the slower ones. Teach from the concrete always and after the article to be made is well understood, remove the model and give the child an opportunity to express himself in his work.

Let a few pupils prepare the warp for distribution before the lesson. If roving is used, try to use the hank as it is, cutting through the lap, one, two, three, or more times, according to the length desired. The weft threads should also be prepared in the same way.

If the roving is untwisted in using, it will weaken and break. Show the pupils how it can be strengthened for the work by twisting it occasionally.

With care the drawing-in which is so general in children's work need not occur. The warp should be taut and firm; the weft loose and rippling. The Navajos weave from both ends of the loom toward the center. This helps to support the warp and keep it in place. If it begins to curve, train the eye of the child to look for it and to straighten the threads after each row of weaving. The warp threads should at all times form a straight line; on the contrary each weft thread should be curved before driving it into place. Teach the child to place his weft in the form of an Indian bow which gives a curve.

The article to be woven this month is a two-strand rug.

PROCESSES. Use of warp and weft in short lengths, tying and knotting. Fingers the only tools. Coöperative work.

MATERIALS. Kindergarten loom or a wooden frame with nails for warp about 1″ apart, roving (1-2 lb.) or cloth cut in 1″ wide strips.

1. A two-strand rug 16″ x 30″, Colors, yellow and gray. Material, roving (1-2 lb.).
2. First strand of warp.

DIRECTIONS FOR MAKING

For this exercise both warp and weft lengths should be free. Let the pupils measure the quantity of roving needed for one length of warp including an allowance of four inches extra at each end for the fringe. (Measure from one nail to the opposite nail, plus 8 inches.) Use this measure for cutting all warp lengths. There should be twice as many as there are nails or pegs to be warped.

For the first exercise let all the warp be of one color, the weft of another. This will give a simple checkered pattern.

Hold two strands of warp together in the hand and place a knot four inches from one end. This allows for fringe. Separate the two strands which have been tied together and place over the first nail for the warp. Stretch and tie the two strands in a knot beyond the first nail on the opposite end. Continue until all the warp lengths have been placed.

In the same way, using a contrasting color for the weft, let the pupils measure the distance across the warp. This distance plus eight inches for fringe, will give the required weft lengths. Use two strands at a time and weave over and under the warp, repeating the process until the weaving is finished. Place the weft close enough to show the checkered pattern. If it is packed too closely the fringe at the sides will become heavy and unmanageable. Give special care to the placing of the first and the last set of weft threads. They must be woven in, so that they cannot slip off when the work is removed from the loom.

After the weaving has been completed and before the work is removed from the loom, take four strands of the fringe at the side and tie them together with an eight-inch piece of roving. Let the loose ends form a part of the fringe. Trim off the ends evenly.

The pattern can be varied in many simple ways. An attractive rug can be made by using one color for warp, and alternating the color of the warp with another color for the weft. Individual rugs of smaller size can be made and used for doll houses and table mats. A wooden box or a board with a few nails will suffice for a loom.

KATHERINE FRENCH STEIGER
Training School
Rochester, New York

NEEDLEWORK

INDIAN COSTUME

The photograph in this month's issue illustrates an Indian costume for a boy, for what boy does not love to "play Indian," and how much more fun it is to make one's own Indian suit than to buy it!

When we begin to read about the costumes of the Indians, and the festivals, dances, and games which were such a part of their life, we realize that they did not spend all of their time in hunting, fighting and killing, as so many of the boys who play Indian seem to think.

The Indian boys had their running, swimming and wrestling matches, and many ball games, and practice in hurling the spear and javelin. They also spent much time in practising the dances in which the men of the tribe were in the habit of participating on special occasions.

Besides the games of the Indian boys, there were national or tribal games in which their elders took part. These national games meant a great deal to the Indians, and they put much physical energy and enthusiasm into them. Games were frequently the chief part of the entertainment on festival occasions, and when they were to take place one village would challenge another to a contest, and in that case, the prize won did not belong to the players, but to the tribe. These contests were considered of such importance that people often came from hundreds of miles to witness the sport.

All games with the ball were in great favor, and, among ball games, how many remember that La crosse, which is played so extensively in Canada, is an Indian game, and was known as early as 1636, by the same name that it is called now. Among the Indians it was originally used to cure ills, or as a rite, to prevent misfortune. It also was a means of entertainment for visitors, and a still more interesting use to which it was put, was as a "blind," or ruse in war, so that the enemy would think hostilities were at an end, and by playing nearer, and nearer, to the enemy's ground, the Indians were enabled to make a sudden rush, and gain access to their forts. The ball used was a small one covered with deerskin.

Among other games the Snow-snake game was very popular. The "snakes" were long sticks made of hickory, five to seven feet long, and one-quarter inch thick. They were sloped down to about one inch wide at the head, and about one-half inch wide at the foot. The head was rounded and turned up a little, with a lead point, to increase the speed when they were thrown. The snake which ran the greatest distance on the snow after it was thrown, was a point for the side to which it belonged.

Still another sport in great use among Indian boys was throwing the javelin at a ring rolling along the ground. The javelin was a spear, made of hickory or maple, five or six feet long, and sharpened at one end. The ring at which the spears were thrown was about eight inches in diameter, and was rolled along a line which had been previously agreed upon by both sides.

As for the manner in which the Indians dressed when taking part in all these sports, those who lived in the northern countries wore garments made from skins of animals; sometimes many small skins, sewed together were used. As a means of decoration, the skin along the edges of the garment was

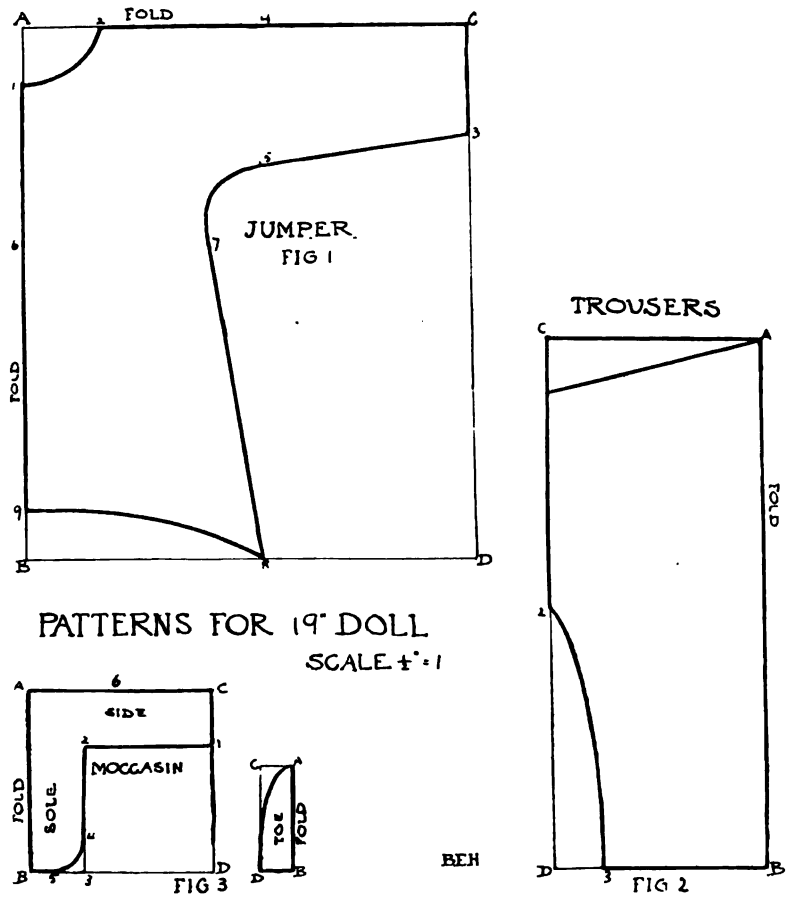


Diagram of the principal parts of an Indian costume for a doll 19" high.

slashed with a knife to make a fringe, and in many cases the garments were ornamented with the emblem or "totem" of the tribe. These totems sometimes represented a bird, or fish, or animal which had been chosen as the name or

sign of the tribe. The various deeds and acts of prowess of the members of the clan, in hunting and warfare, were also depicted on their clothing and teepees (huts). The accompanying illustrations show some of the emblems used in decoration.

The shoes which the Indians wore were called moccasins, and these also were made of skins. The Indian women ornamented them with bead embroidery.

The suit illustrated in the picture is not a chief's suit, as that frequently consisted only of a skirt, leggins, and headdress, but this represents an entire costume made of skins.

A very good Indian costume may be made from a tan colored cambric, trimmed with red bands, allowing about three-quarters of a yard for the doll size, and about three and one-half yards for a ten or twelve year size. The hat in the illustration is made on a frame work, consisting of two splints, one forming the band around the head, and the other at right angles to it, from front to back, giving a foundation for the crown. The feathers, usually eagle's plumes, were fastened to the center splint.

In making the hat featherbone (uncovered) may be successfully used for the framework.

DIRECTIONS

For Jumper: Take paper 17″ x 20″. Fold lengthwise, then crosswise. After folding in quarters, mark lengthwise fold A, B, and edges C, D, as in diagram. Point 1 = 1″ from A. Point 2 = 1 1-2″ from A. Point 3 = 2″ from C. Point 4 = 4 1-2″ from A. Point 5 = 2 1-2″ from 4. Point 6 = 4″ from A. Point 7 = 3 1-2″ from 6. Point 8 = 4 1-2″ from B. Point 9 = 1″ from B. Curve for neck from 1 to 2. Curve for bottom from 8 to 9. Fringe sleeve from C to 3. Fringe bottom from 9 to 8.

Note. Make sleeve and bottom of jumper longer if necessary.

For Trousers: Take paper 8″ x 10″. Fold lengthwise, and mark fold A, B, and edges C, D, as in diagram. Point C = center back of trousers. Point 1 = 1″ from C. Point 1 = center front of trousers. Point 2 = 5″ from C.

Point 3 = 1″ from D. Curve from 2 to 3 for inside of leg. Fringe bottom of trousers, and make longer or shorter as necessary.

Moccasins: Take paper 7″ x 3 1-2″. Fold into square, and mark fold A,B, and edges C,D as in diagram. Point 1 = 1″ from C. Point 2 = 1″ from line A,C and line A,B. Point 3 = 1″ from B. Point 4 = 1-2″ from 3. Point 5 = 1-2″ from 3. Curve from 4 to 5 for heel. Point 6 = 1 1-2″ from A. Gather from A to 6.

Toe: Take paper 2″ x 1″. Fold lengthwise and mark edges as previously. Curve from A to D for toe. In making, place A of sole to A of toe, and gather fullness around point of toe. Edges C1 are seamed together, and placed at B of sole, and sewed around sole. Toe portion may be opened from B towards A, and tied.

In making these patterns in a ten or twelve year size, all the measurements may be increased three times, except in the moccasin, where the proportion would vary.

Measure sole of foot, and make AB equal to this measurement, and line A,C (after folding) the same. Multiply other measurements of the moccasin by three.

The suit may be trimmed down the sides of jumper and trousers, and on outside of sleeves, by slashing the material, placing the fringe on each side of a red band. The jumper may also have a cape simulated around the shoulders by the fringe and a red band.

BLANCHE E. HYDE
Newton, Massachusetts

METALRY

PEN TRAY

There seems to be but one general outline for a pen tray and that is rectangular. As penholders vary very little in length and as any pen tray is designed to hold three or four holders, the best dimensions for the tray part are 8 1-2″ long by 2 1-2″ wide, or 11 1-2″ x 3 1-2″ for the finished tray. The outline may be regular or irregular and some decoration may be applied to the ends and sides if desired. A pen tray looks well without any decoration, with simply a plain edge left around the tray, if it is good in proportion. It sometimes adds a little interest, however, if a little piercing, embossing or enameling is done at either end, if kept simple in detail.

Making a pen tray is an easy problem. The idea is to take a rectangular piece of sheet metal and to stretch or expand it in the middle so that the tray proper may be shaped from the expanded metal while the sides are left the original thickness. The design for the pen tray described here is illustrated in Figure 1.

To make the tray we shall need a piece of 20 gauge* metal 11 3-4″ x 3 3-4″.

Draw the diameters. Lay off 4 1-4″ on either side of the short diameter, and 1 1-4″ on either side of the long diameter as shown at A,B and C,D, Fig. 2. Draw parallel lines through A and B and C and D thus making a rectangle 8 1-2″ x 2 1-2″ which is the size of the tray proper. These lines should be drawn in pencil first and then made permanent with a scratch awl. Now measure 1-4″ inside of the rectangle we have just made making another rect-

*Gauge, is a term used to denote the thickness of sheet metal. The Standard Wire Gauge is divided in gauge numbers from 5 to 36, and is used for measuring the thickness of wire and sheet metal. It is usually a circular plate of steel having round its edges a series of notches of standard openings.

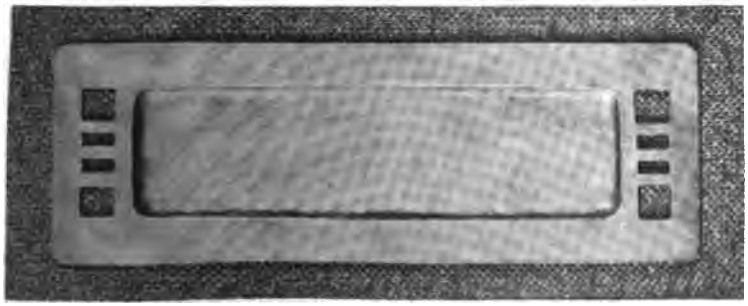
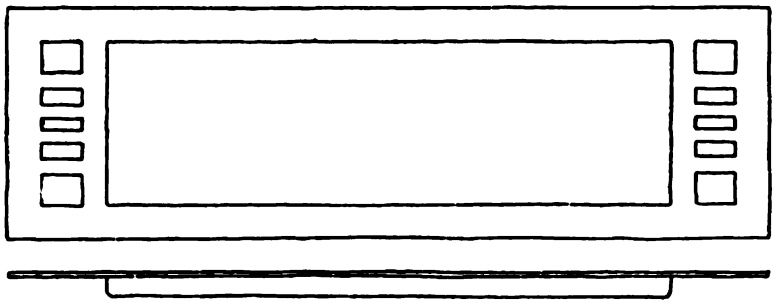
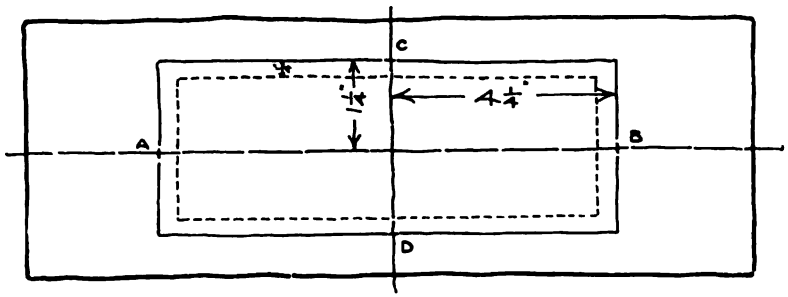


FIG: 1.



angle 8″ x 2″. These lines must not be scratched but left in pencil, as shown by dotted line, Fig. 2 E. The metal inside of the dotted lines is to be stretched to form the hollow part of the tray. This is done with the hammer shown at Figure 3 A. Place the metal over a smooth flat metal surface (an old flat-iron serves the purpose very well) and using the domed head of the planishing hammer shown at A, go over the surface inside of the dotted line. This stretches the metal in the center where we want to get depth for the tray. When this has been done evenly all over, the metal should be softened as the hammering has hardened it. This softening is called annealing and is done by heating the metal red hot and allowing it to cool either naturally or by dipping it in cold water. The heating is ordinarily done by the use of the blow pipe, but if one is not at hand the metal may be placed over a gas plate or in an ordinary kitchen stove on top of the hot coals. It will be necessary to anneal

FIG. 2.



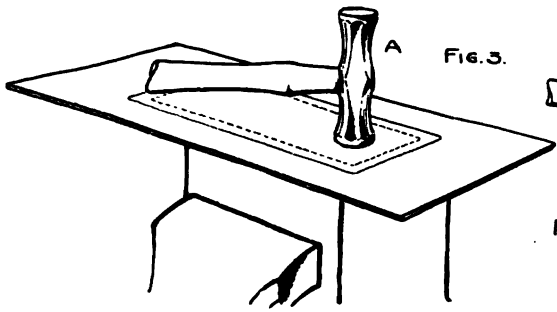


Fig. 3.

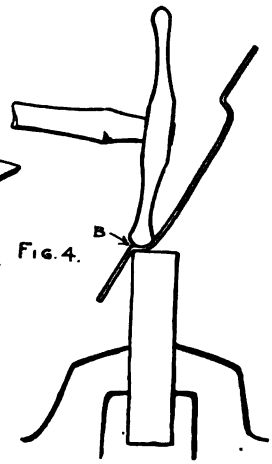


Fig. 4.

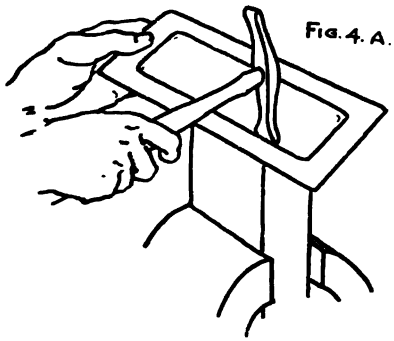


Fig. 4. A.

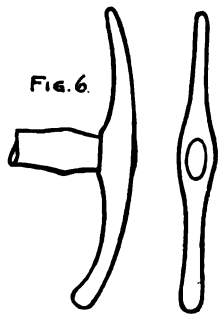


Fig. 6.

Fig. 5.

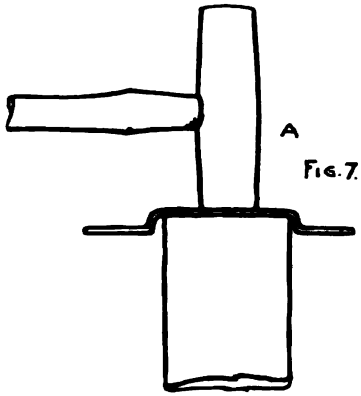


Fig. 7.

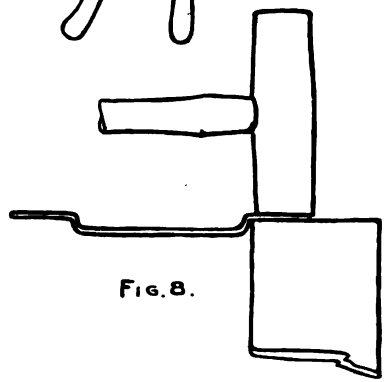
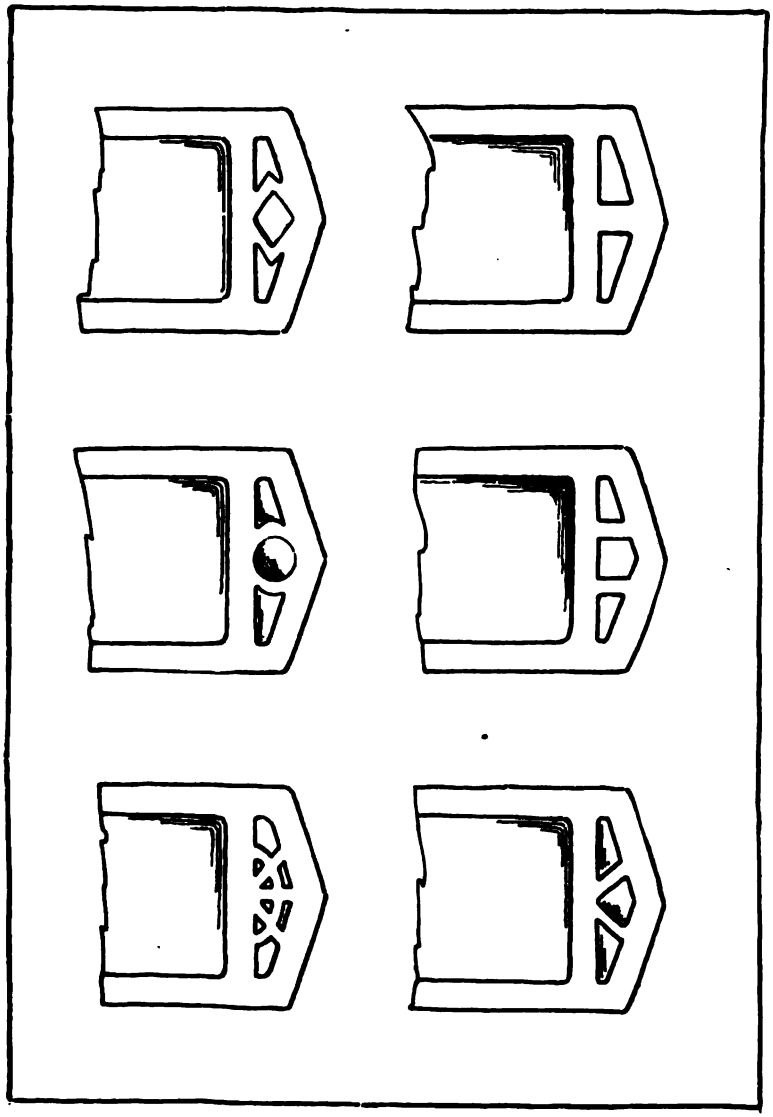


Fig. 8.

two or three times during the making. Next take a piece of hard wood, about 4″ x 4″ x 7-8″ with square edges, maple is best, and place it in the vise so that the grain of the wood runs vertical. Place the back of the metal against the block so that the edge of the block is exactly below the line B. Fig. 4. With the hammer shown at Figure 5 go around the scratched line, sinking or driving the metal away from the surface as shown at Figure AA. To work around the corners it is necessary to use a hammer like Figure 6. This operation is repeated until the required depth is obtained A good depth for a tray of this size is about 5-16″. The bottom of the tray will be more or less irregular, which depends upon the care we take in hammering. To even the bottom, reverse the tray and place it over a thicker block of wood, Fig. 7, about 4″ x 4″ x 2 1-4″ and use a mallet, Fig. 7 A. The edge of the tray should be kept level. This is done by placing it against the edge of the block, Fig. 8, and hammering it lightly several times during the making. After shaping the hollow part of the tray as desired we then true up or planish the entire surface of the tray using hammer at Figure 5. As this hammer gives a long narrow mark care should be taken to keep the marks parallel. In planishing, a metal block is used in place of the wooden one. As before a flatiron will answer the purpose.

We are now ready to finish the outline of the tray and apply the decoration. The design for this tray calls for a flat space of 1-2 inch from the edge of the sunken part on each side, so we measure this distance, draw a pencil line and cut to the line with the shears. By referring to our design again we find that at either end there is a flat space of 1 1-2 inches called for, so the measurement is made and the ends cut to the required line. We also notice that the decoration in this case is piercing at each end. A tracing is made from the design and glued to the bottom or under side of the tray. A drill is then used to make an opening through which the piercing saw is placed. The piercing saw is first placed in the saw frame with the teeth pointing out and toward the handle and made secure at one end. The other end is placed through the hole where the opening is to be and then made secure at the other end of the saw frame. The tray is then placed at the edge of the bench or over a piece of wood screwed on the bench for this purpose. The saw is held in a vertical position and moved up and down. When the openings have all been sawed out, a file is used to true up and smooth all edges. A piece of fine emery paper may be finally used to finish edges.

Sometimes the metal takes on beautiful colors during the making of the tray, resulting from annealing, but more often they are uninteresting. When they are uninteresting it is necessary to clean the object. A solution called pickle is used for this purpose and is made of one part of sulphuric acid to fifteen parts of water. The solution may be used cold but is more effective



Suggestions for pen tray ends.

if used hot. When used hot a copper dish is necessary. The object being placed in the dish with enough pickle to cover it, it is allowed to come to boiling heat. The pickle is then poured off and the object rinsed in clean water. After cleaning, the tray may be colored in various ways but one that has proved satisfactory is obtained by dipping it in a solution of liver of sulphur and water, using a lump of liver of sulphur about the size of a half dollar, and one quart of water. Heat the solution and dip the object while hot. This will turn the tray black but, after rinsing in cold water, the color of the metal is brought out by rubbing lightly with fine pumice stone, removing as much or as little of the dark color as desired. Rinse in clean water, dry in sawdust and rub well with a soft cloth. Another method of coloring is to coat the tray with ordinary machine oil after it has been thoroughly cleaned and heat it very slowly and evenly either on top of a stove or over a gas plate. This operation should be watched closely and when the desired color has been obtained remove the tray and let it cool naturally. A pair of tongs is necessary to handle the tray when it is hot. This method gives beautiful irridescent colors, and although they are not permanent they will remain for a long time.

The principle followed in making the pen tray is employed in the making of plates, pin trays, and card trays whether circular, square or rectangular.

The tools required in making the pen tray are quite few in number, in addition to what we already have—a mallet, three hammers and a pair of tongs.

MATERIALS. A piece of sheet copper 11 3-4″ x 3 3-4″ No. 20 gauge. A lump of liver of sulphur. 1-4 lb. powdered pumice.

To enable those interested in this problem to obtain the necessary tools and materials Mr. Rose will send them as specified above to any address on receipt of postal money order for $2.75 if ordered together. If ordered separately, twenty-five one cent stamps for materials and postal money order of $2.50 for tools. All correspondence to Mr. Rose should be addressed to 14 Woodbridge St., Cambridge, Mass.

AUGUSTUS F. ROSE
Boston, Massachusetts

HELPFUL REFERENCE MATERIAL

Geometric Problems and Applications

Lary, Book, April 1909, p. 776. Cross, Mechanical Drawing. Anthony, Year-Book of Mechanical Drawing. Mathewson, Notes for Mechanical Drawing. Thompson's Mechanical Manual, Part I.

Constructive Drawing and Design

Bailey, Book, November 1904. Council Year-Book, Bailey, The Principles of Constructive Design, 1901; Bailey, Beautiful School Work, 1905; Sargent, Constructive Work without Special Equipment, 1906; Mathewson, First Year Drawing in Technical High School, 1906; Cremins, Design in Primary Grades, 1906; Batchelder, Constructive Design, 1904; Soper, Constructive Work in Town Schools without Special Equipment, 1907. The Art Crafts for Beginners, Sanford.

Drawing and Making

Prang Text Books, Chapters entitled Measuring and Planning. Council Year-Books: Articles by Mohr, 1904, 1905; Cremins, 1904, 1905; Griswold, 1904; Garritt, 1906, 1907; Murray, 1907; Dillaway, 1907. Primary Hand Work, Seegmiller. Paper Sloyd for Primary Grades, Rich. Elementary Sloyd and Whittling, Larsson. Beginning Woodwork at Home and in School, Van Deusen. Problems in Woodworking, Murray. Problems in Furniture Making, Crawshaw. Applied Arts Drawing Books, Seegmiller. The Manual Arts for Elementary Schools, Hammock.

Lettering

School Arts Packets on Lettering and Initials. Perry, Book, January 1905, p. 196. Haney, Book, January 1904, p. 228, December 1907, p. 289. Daniels, Book, May 1905, p. 49. Hall, Book, April 1909, p. 753. Brown, Letters and Lettering (Bates & Guild Co.), especially Chapter 5. Council Year-Book, 1906; H. H. Brown, Teaching of Lettering. Johnston, Writing and Illuminating and Lettering. Applied Arts Drawing Books, Seegmiller, VI, p. 31; VIII, pp. 23, 31. The Manual Arts for Elementary Schools, Hammock, IV, p. 21; V, p. 14; VI, p. 24; VII, p. 14; VIII, pp. 26, 27.

Thanksgiving Material

School Arts Harvest Packet. Book, November 1905, p. 223. Historic Pilgrimages in New England, Bacon (Silver, Burdett & Co.), Chapters II-V.

Trust in Nature for the stable laws of beauty & utility

OCTOBER

1 FRI ○

Fling wide the generous grain; we fling
O'er the dark mould the green of spring.
For thick the emerald blades shall grow
When first the March winds melt the snow
And to the sleeping flowers below
The early blue birds sing. *Bryant*

2 SAT ○

There are people who say I see no charm in the country. I see much more than charm there — I see infinite splendors. — One can say that everything is beautiful in its own time and place, and on the other hand, that nothing misplaced is beautiful. *Millet*

3 ✠ ○

4 MN ◑ Millet b. 1814.

First among artists he realized the artistic capabilities of modern life. *Cartwright*

5 TUE ◑ J. A. Symonds b. 1840. Critic and literary historian. Author of "The Renaissance in Italy," a standard work.

6 WED ◑ Tennyson d. 1892. Come, my friends, 'Tis not too late
to seek a newer world. Push off, and sitting well in order
Smite the sounding furrows; for my purpose holds
To sail beyond the sunset, and the paths
Of all the western stars, until I die. *Tennyson*

7 THU ◑

8 FRI ◑ Rembrandt buried 1669. A superb etcher and a supreme painter, whose like it is not probable we shall see again. *Van Dyke*

9 SAT ◑ Filippo Lippi d. 1469. If you get simple beauty and not else, you get about the best thing God invents. *Browning*

10 ✠ ◑ Watteau b. 1684 West b. 1783. Munkacsy b. 1846.

A calmness broods upon the hills,
And summer's parting dream distills
A charm of silence over all. *Henry Van Dyke*

11 MON ◑

12 TUE ● 1492 Columbus landed on San Salvador.

Who pushed his prows into the setting sun
And made west east, and sail'd the dragon's mouth
And came upon the Mountain of the World
And saw the rivers roll from Paradise. *Tennyson*

13 WED ●

14 THU ● Battle of Hastings 1066, made William the Norman king of England, for which triumph the twin temples of peace at Caen were a thank offering.

15 FRI ● Virgil b. 70 B.C.

O happy happy husbandmen for whom, far from the din of war, the kindly earth pours forth an easy harvest—
Virgil

16 SAT ●

Spring shall plant and Autumn garner to the end of time

OCTOBER

Browning.

17 ☌ ●

IN GARNERING the fruits, in discarding the waste, in bidding farewell to south-bound troops of birds,– in closing up the old account do not forget the new October is the time to place the "seed in its winter bed," & to plant bulbs.

18 MON ◗ **St Luke's Day.** Saint Luke is patron of painters. A Greek monk. Michael (d.826) affirmed the evangelist painted a portrait of Christ.

19 TUE ◗ **Leigh Hunt b. 1784.** "Write me as one who loves his fellow-men."

20 WED ◗ Demeter of the threshing-floor! Ah once again may I plant the great fan on her corn-heap, while she stands smiling by, with sheaves and poppies in her hands. *Theocritus.*

21 THU ◗ **Coleridge b. 1772.** He prayeth best who loveth best
All things, both great and small. *Coleridge.*

22 FRI ◐ 'Tis the noon of autumn's glow
When a soft and purple mist
Like a vaporous amethyst
Or an air-dissolved star
Fills the overflowing sky *Shelley.*

"The merciful man is merciful to his beast." Take notice, for winter comes anon. He who loves all things both great and small" will rejoice in the golden Hunters' Moon which falls on the 28th, without murdering anything.

23 SAT ◐

24 ☌ ◐ Make a moonlight pilgrimage to some shrine of beauty.

25 MON ○ **Chaucer d. 1400,** said, Nature, the vicar of the Almighty Lord."

26 TUE ○ PRINTING in the glorious history of which shine the names of Gutenberg, Coster, Caxton, Aldus, Morris, was a secret process until the sack of Mainz, 1462, closed the shop of Peter Schoeffer, and scattered his workmen wide, like generous grain teeming with a mighty harvest. The date was

27 WED ○ **The Hegira of Printing, 1462.**

28 THU ○ *The Jewel of Alfred*, of blue enamel and gold, quaintly lettered, ALFRED HAD ME WROUGHT was found at Athelnay, on this day, 1693.

29 FRID ○ How soft and still the autumnal landscape lies,
Calmly outspread beneath the smiling skies:
As if the earth in prodigal array
Of gems and broidered robes kept holiday. *Sarah Whitman*

30 SAT ○

31 ☌ ○ "Bear him forth in triumph, Through the autumn night.
Hallowe'en. Keats b. 1795. Jolly Jack-o'-lantern,
With his eyes so bright"

OLD DEERFIELD IN OCTOBER

By

THE ALLEN SISTERS

THE Main street of this famous old New England town is in its glory when the leaves of its giant elms have turned yellow. Then the sleepy haze of the valley floods every nook and corner of the village, and the sunlight, strained through this golden canopy, bathes the quaint houses gray with age, the old side paths wandering at will, and the grassy slopes of the roadway flecked with the first ripe leaves, with a radiance of light of indescribable loveliness.

EDITORIAL

OCTOBER is here again!

"Her herald is the sumac, with its banner rays of flame;
'The carnival is coming,' its crimsons now proclaim.
Her Majesty, October, writes her signature in gold
From the hillside to the valley and across the sunlit wold;
The marigolds and asters, with the plumes of goldenrod,
Set forth the splendors of her state at her imperial nod.
The Frost King greets her with his touch—the queen whom he admires,
And straight her emerald tapestries are shimmering with fires;
Her forest belts are jewel-claspt, her crowns are ruby tipped;
Her garments bear the fragrance of the rarest wine that's sipped.
She rules by right of beauty and our worship quick compels;
We love the spring and summer, and the winter's clinking bells;
But Her Majesty, October, makes the careless heart devout,
And we bow in silent reverence at her regnant marching out."

Let us all join hands with Emily Gilmore Alden, and bow with her before this queen-mother.

¶ If this makes too great demands upon the imagination, read to your children The Passing of the Leaves:

So the tree went on growing all summer long, until the middle of October. Then there came a very cold night, and the leaves stood still all night long, wishing that the wind would come and keep them stirring and keep off the frost. But they did not freeze that night. In the morning they were very still and sober though.

One leaf said to another: "I feel somehow as if times were changing!"

"Yes, we shall not be here very long."

"No, the sap doesn't come up as freely as it did, and I am not so plump and smooth as I was."

"I wonder what is going to happen! Somehow the sun doesn't seem as warm as he did!"

So the leaves talked together in their old age. And they agreed to write down all they knew, and put it in little packets, and fasten them on the twigs, so that if anything should happen, these little buds would know how to grow up and be good leaves next year. And every leaf fixed up a bud, and put all he knew inside of it, and then waited patiently for what was coming.

By and by it came—a regular freezing frost. Then the leaf felt all its little cells burst by the ice in them. All the windows by which the sap looked

out at the sun were darkened. All the little doors through which the sap got air were closed. All the little canals by which the sap came up through the stem were blocked up, and the poor leaf had nothing more to live for.

For a few days he hung on to his twig, and kept up as much color as he could. But he changed every day, and grew lighter and drier. All the little juice that was in him the winds drank up. Then the leaf grew stiff and rattled in the wind. By and by, the stem became so brittle that it broke off, and the leaf went whirling down into the road, just under my window, and the wind rushed it along down-hill, till it found a quiet spot in a deep gully by the bridge, where the ground is always damp.

Then the leaf began to soak up the water and decay. In a little while there was nothing left but the stem and ribs of it—the skeleton of a leaf. All the rest was decayed and gone.

"Gone! Where to?" Well, I'll try to tell you.

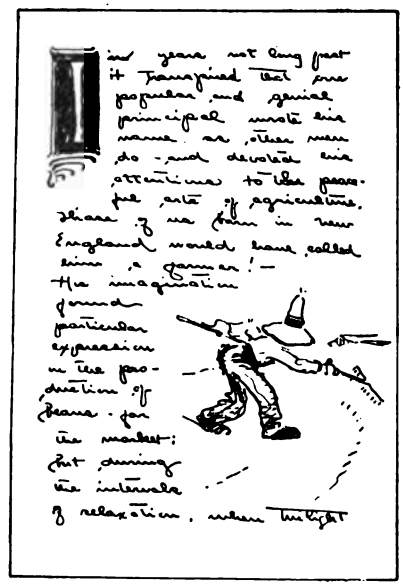
When things decay, it is the same as burning them very slowly. Part of the leaf becomes a sort of gas, and floats off in the air, or is carried off in the water. And all the rest of the leaf just sinks down and mixes up with the soil where it lies. If you burn a leaf, you know that the gas and smoke go off into the air, and only the ashes remain. It is just the same when my leaf decays under the bridge. And so when my hickory leaves "go," they go off mostly into the air to feed other leaves; a little into the ground to be sucked up by the next tree or blade of grass that grows by their grave.

Nothing is ever lost. They go away, but they come again, here or somewhere else. Nothing is ever lost.*

¶ The cover stamp this month is a very old symbol of joy. It was enlarged, by a high school boy, from a Chinese decoration painted on porcelain. Like almost all Chinese art, whether in the realm of architecture or handicraft, it violates the principles considered in the western world as fundamental. It must be confessed, however, that this arrangement of straight lines within a circle is rather amusing and not unpleasant, although only the merest fragments of the figure fall upon either the vertical or the horizontal diameter, and there is nothing within

*From "In Time with the Stars," by Thomas K. Beecher, the chapter "How Things Change." An invaluable book of short addresses to children, addresses with a moral, ethical, or religious purpose.

the contour of the circle to echo the original form even remotely, as a square in the center would have done. The widths of the spaces contradict the practice of the Greeks in their frets, and the lack of interlacing, together with the sharp-angled character of the whole, sets it apart from Celtic patterns. This rosette, if such it may be called, is a typical Chinese method of filling a circle; it should not be overlooked by the modern designer. In reproducing the design, draw first an outer circle. Within this draw a second which shall determine the thickness of the strokes throughout the design. Draw a vertical diameter and set off carefully on this diameter all the vertical measures. Rule indefinite horizontal lines from these points and then add the other vertical connecting members. The pattern may then be filled in with India ink. It may help the pupil to know that the vertical diameter of the inner circle, if divided into six almost equal parts, will furnish points upon which principal lines of the design are located.



¶ I promised last month to show you a few examples of pencraft produced spontaneously, without the remotest suspicion that they would ever be reproduced. Here they are, much reduced in size. That on this page is from a letter I received

from Ernest A. Batchelder, a letter solid full of fun, and fine art. The first rectangle on page 183, came from Amy Rachel Whittier, one of the Boston Supervisors; the second I borrowed from Mrs. Bailey; the third is a note from James Hall; the fourth is from a post card by Herman Bucher of New York. Longfellow says to his friend, in The Day is Done,

"Then read from the treasured volume
The poem of thy choice,
And lend to the rhyme of the poet
The beauty of thy voice."

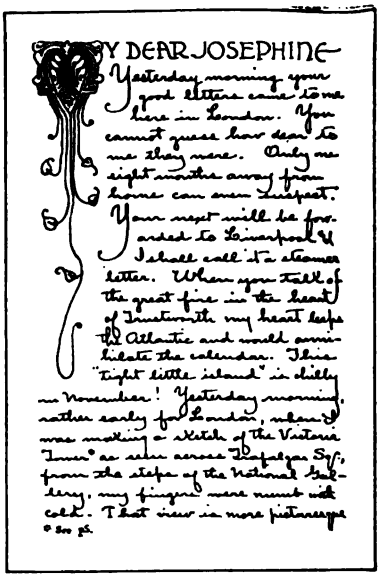
With such letters as these from one's friends one may gather a similar double pleasure, for the writers have added to their message the beauty of a free and charming art, an art within the reach of all.

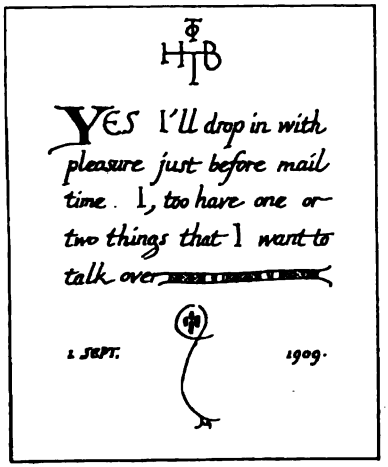
¶ The article on Picture Study by Professor Sargent recounts an experiment of great importance, an experiment which may prove to be epoch making in the history of picture study in the schools. One thing is certain, that from such study as there outlined no such result as the following could appear:

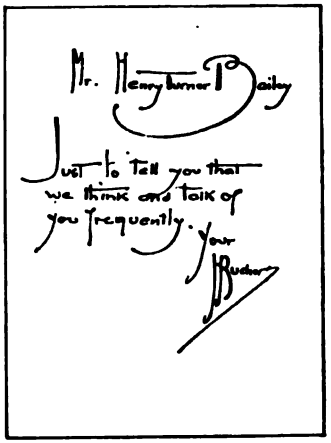
This story is abaut baby Stuart.
When baby Stuart was in a ship she fell out and a dog saw her and swam to her and put his foot undur her and carry her to shore when she was growing up she was a king of England the dog was named Landseer.

This remarkable and ludicrous essay is the production of a third grade pupil. "Art interpretation" too early is as bad as carpentry work too early, mechanical drawing too early, and "scientific color" too early. Modern psychologists agree with St. Paul in one respect at least, (some "educators" seem to disregard the teachings of both), namely, that children and adults differ in certain manifestations of mental activity.

The Whittiers and
The Clarks
To The Baileys
GREETINGS
and pleasantest
memories of
The May Party


Y DEAR JOSEPHINE
Yesterday morning your
good letters came to me
here in London. You
cannot guess how dear to
me they were. Only me
eight months away from
home can even suspect.
Your next will be for-
warded to Liverpool &
I shall call it a steamer
letter. When you tell of
the great fire in the heart
of Tuntonville my heart leaps
the Atlantic and would annihilate the calendar. This
"tight little island" in chilly
November! Yesterday morning,
rather early for London, when I
was making a sketch of the Victoria
Tower as seen across Parliament Sq.,
from the steps of the National Gal-
lery, my fingers were numb with
cold. That is more picturesque
• See p5.





¶ In response to a demand from different parts of the country for the motto of The School Arts Guild done large size suitable for hanging on the schoolroom wall, the Davis Press has printed the motto in two colors on a card 10 x 13 inches. This card can be obtained only by subscribers to the magazine. It is given as a premium with each renewal or new subscription. I did the lettering myself as well as I could, following well-established precedents in pen craft. This card is reproduced small size as the frontispiece to this number. Cards of this size are given as prizes to certain winners in the monthly contests.

¶ After a somewhat unhappy delay, arrangements have finally been made for the writing of the Outline for the Mechanical Division of the High School course by Mr. Mathewson of the Technical High School, Cleveland, Ohio. The readers of The School Arts Book ought to congratulate themselves upon having the high school work outlined by two men of such experience and ability as Harold Haven Brown and Frank E. Mathewson. Each course will be progressive through several years, furnishing a complete outline preparatory for the courses in collegiate or technical schools.

parties will end the month with jollity. The exultation expressed by this boy with his jack-o'-lantern, drawn by a little girl named Margaret, six years old, will be experienced by many a lad who achieves a lantern this year for the first time. Let us help the children to have a good time. A few suggestions for favors are given by Miss Barker of Newport, R. I., in the department of Correspondence.

¶ This year the Museum of Fine Arts, Boston, offers two collegiate courses, beginning in February and running through the second semester of the college year. The fee for each of these courses is $5. Blank forms of application will be sent on request. A course in Design in the terms of Drawing and Painting, with special reference to examples in the Museum, by Dr. Denman W. Ross and Mr. Edgar O. Parker. A course in Observation of Pictures, by Miss Alicia M. Keyes. One picture is studied each week with special reference to the use of color, and exercises in observation of color and light in nature are constantly required.

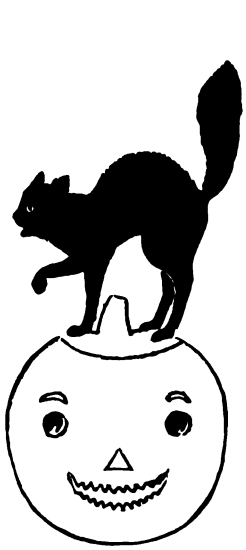
¶ Several "esteemed correspondents" have said that the best part of The School Arts Book is the department of wit, dismembered and scattered like spice through the advertising pages. No one can invent such items. Only real live children in the stress of school life can produce them. The children are throwing them off constantly "to pass into nothingness" unless the teacher catches them in her note book. Any teacher who will catch five fresh examples of the unconcious wit and humor or the amusing stupidity of children, and send them to The Davis Press, 44 Front Street, Worcester, Mass., on or before December 31st, 1909 will receive as a token of the appreciation and thanks of the Publishers of The School Arts Book a packet of Old Japanese Designs. Needless to add, these examples must be genuine, and unpublished.

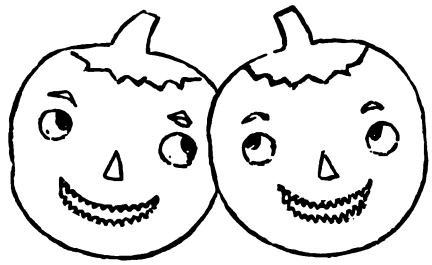
A little nonsense now and then
Is relished by the best of men.

CORRESPONDENCE

My dear Mr. Bailey:— Newport, R. I.

I am sending you a few Hallowe'en favors showing what the pupils in the lower grades have done to celebrate this season of festivity. Thinking you may enjoy these as unique features of work I will add them to your store of accumulations. Very truly yours, Edith A. Barber.





My dear Mr. Bailey:— Lowell, Mass.

There comes a time in almost every study when it is necessary to review work which, seemingly well presented and carefully worked out, does not appear to have made a lasting impression. Reviews as a whole do not attract children. For a change to induce interest I tried this experiment.

The subject was spelling and the words were those termed difficult to spell, consisting mainly of adverbs, adjectives, prepositions, and verbs, active or passive. These are found in most spelling lists arranged alphabetically, as ache, afraid, almost, already, etc. The average age of the children was eight, and in third school year. The words were assigned, ten or more at a time, care being taken against copying. First the children were to write the word from the book or board, then to draw a picture representing their idea of the definition.

Under the word "ache," a number of specific aches were expressed, as toothache, headache, earache. "Afraid" brought quite a revelation. They were afraid of bears and other animals not so readily determined from the picture. The children were "against" various things,—fences, trees, lamp-posts, or children. "Already" meant to some, in condition to go somewhere, equipped for school or church. "Answer" involved a telephone.

This gives an idea of the experiment.

After it had been tried I was interested to read Sully's Studies of Childhood, The Young Draughtsman, and compare notes.

Yours sincerely, Sarah E. Scales.

Dear Mr. Bailey:—

How do you like our Hallowe'en favors? We like our Jack of the lantern very much he looks so fierce and funny and frightful. We cut him from

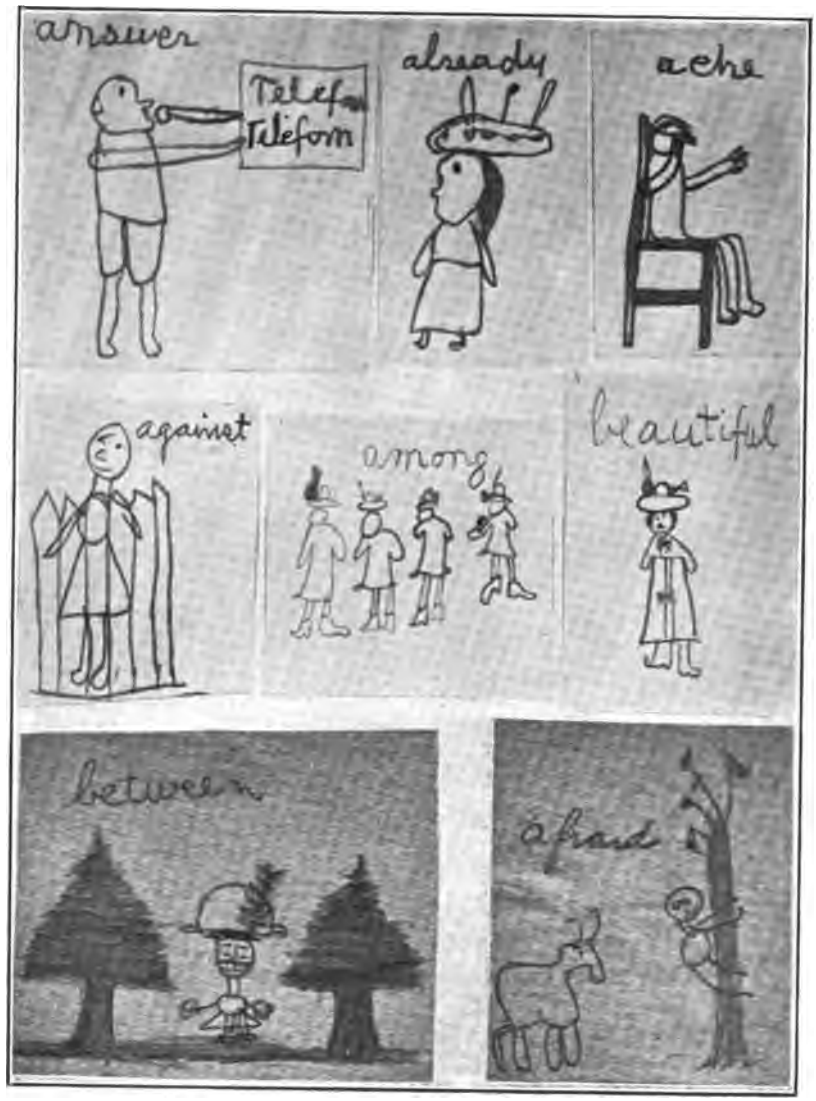
drawing paper colored dark red and then pasted a piece of bright yellow paper on the back of him to make his eyes, nose, and mouth shine. A touch or two with the lead pencil, and a bit of string, finished Jack to the complete satisfaction of the children. The Jack I am presenting to you as a sample was made by Vernon Brock, second grade, Union Primary, Kennett Sq., Pa.

Yours cordially, A. B. A.

AN INEXPENSIVE SUBSTITUTE FOR PAINT.

To the Editor of The School Arts Book:—

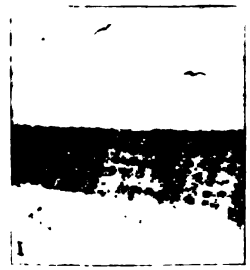
In many schools throughout the country, the children are handicapped because school boards declare water color boxes and paper to be too expensive. A substitute for water color is to be found in Easy Dyes (formerly known as


answer
Telefon
Telefon
already
ache
against
among
beautiful
between
afraid

Magic Dyes). They are known to many teachers in stencil work. Three or four tubes of this new painting medium may be had at any drug store at a cost of fifteen cents a tube. These will last a school of forty, a year or more. The colors mix readily in cold water and are applied with the brush in the same manner as water color with far more satisfactory results, so far as softness of color and facile technique are concerned.

Each child should be provided with several little pans, or baking powder can tops, for the colors, and one from which clear water may be taken to moisten the "paints." The teacher may squeeze into each receptacle an amount of dye equal to the size of a hat pin head, or even less, or she may find it easier to have previously dissolved the dye in bottles of water, and to distribute the liquid. A little experience will regulate the use of the dyes according to the needs of the school. The dyes do not stain the pans nor the brushes if they are washed at the close of each lesson. Curiously enough, one brush may be used for all colors with the same ease as in water color work.

The necessary colors are Cardinal Red, Yellow, Cadet Blue, and Navy Blue, the last named being used instead of black in monotone pictures, since it really is, when diluted, a soft atmospheric gray instead of blue. With the use of this one color, simple winter landscapes like Illustration I may be made in the lowest grades. For Illustration II the tree was first drawn and cut out by the teacher (who should select a knotted old tree for her model), then laid on the paper by the pupil and used as a positive stencil. Holding it firmly the brush is rapidly passed over the part intended to represent the sky. The object of the stencil is to preserve the whiteness of the paper where snow is to be represented. The trunk of the tree below the horizon line is outlined



I

II

to throw it in relief against the snow. As the snow falls and rests upon the upmost surfaces of the branches, the rest of the tree may be painted black. Illustration III is a problem in simple composition for primary grades, and represents the fish in an aquarium. The paper is first shaded in blue or gray, and when dry the fish added with darker tones.

In the list of colors, green was not mentioned. It is readily made from yellow and blue, though, if desired, green may be procured in the tube.

The paper should be wet on the wrong side and damp on the right side. With a little experience the teacher will overcome such difficulties as the using of the paper too wet or too dry, or the using of too strong color.

Drawing and painting are natural modes of expression, and a true teacher may always satisfy the child's desire to picture if the medium is only blueing and red ink or a stick of homemade charcoal.

Mrs. Rena Tucker Kohlmann,
Teachers College of Indianapolis, for the Training of Kindergartners and Primary Teachers.

THE ARTS LIBRARY

BOOK REVIEWS

Elementary Principles of Industrial Drawing. By George Jepson. 30 pp. 6 x 8. 11 plates. 50 cents.

This little book is just what some people have been looking for, for a long time, a book which in the smallest possible compass presents "all the essential principles as applied to mechanical and architectural drawings." The exercises in the book have been given by the writer in a course of twelve lectures of two hours each. Needless to say, the exercises have been selected with the utmost discrimination. The plates are clear and the text without a waste word. Mr. Jepson is instructor in descriptive geometry, machine drawing and shop work in the Massachusetts Normal Art School, was for many years master of an evening drawing school in the city of Boston, and is a medallist of the Science and Art Department, Great Britain; he therefore speaks from an extensive knowledge of the needs of pupils.

Woodwork for Schools. By Bailey and Pollitt. 156 pp. 4 1-2 x 7. 122 illustrations. The Manual Arts Press, Peoria, Ill. 75 cents.

This little book seems to be the best expression of the present effort among English manual training teachers to correlate mathematics and physical science with manual training. Mr. Bailey is head-master of St. Albans Technical School, and manual training staff instructor for Hertfordshire County Council. Mr. Pollitt is head-master of the South Hall County School, Middlesex. The book contains directions for making many objects of interest to boys and of use in the schoolroom. The plates are clear and the text adequate. One cannot but wish that esthetic considerations had been given a little greater weight in some of the models. Such models as the wall bracket, Fig. 8, the toothbrush rack, Fig. 29, the wall bracket, Fig. 31, the Oxford frame, Fig. 37, the match box bracket, Fig. 41, and the coat rack, Fig. 43, are inexcusably barbaric in design. The models for physical apparatus are especially commendable. Among the models which are somewhat notable and which might prove of unusual interest to American boys and girls, are the galvanoscope, Fig. 48, the hygroscope, Fig. 83, the moth trap, Fig. 87, the bat and ball trap, Fig. 91, the needlework cabinet, Fig. 106, and the gong stand, Fig. 114. A bright manual training teacher having had some training in esthetics, would be able to develop a large number of attractive models from the suggestions given in this book.

Modelling in Public Schools. By Walter Sargent. 36 pp. 6 x 8. 18 illustrations. J. L. Hammett Co.

Without wasting time with fine phrases on the educational value of clay work, and without making use of words temporarily fashionable in the pedagogical world, the author sets forth in a way that everybody can understand, the essential equipment, plan of work, and methods of manipulating plastic material in the elementary schools, and concludes with directions for making simple plaster casts. The illustrations are well chosen and admirably reproduced. The book is exactly right for the busy teacher who wishes to have educative modelling in her school. "A boy who cannot draw an Indian canoe from a small model can usually shape one in the round and then in relief. After these steps he can almost always draw it with fair success."

Oriental Rugs. By Arthur Urbane Dilley. 82 pp. 6 x 8 1-2. 31 illustrations and a map of the rug-producing districts of the Orient. A. U. Dilley & Co., Boston. 50 cents.

People interested in oriental rugs but unable to own the large and expensive books dealing with their manufacture and design, would be glad to have this little book with its typical patterns. Mr. Dilley is an authority and gives reliable information on how to identify oriental rugs.

The Manual Arts for Elementary Schools. By C. S. and A. G. Hammock. D. C. Heath & Co.

This new series, consisting of nine books for children's use and a manual for the use of the teacher, marks a distinct advance in school equipment. The books for the primary children have pages 6 x 8 inches, a most convenient size for little folks to handle. The books for the grammar grades have pages 8 x 11 inches, bound by the long edge and therefore more than usually convenient to handle upon the school desk. The teacher's manual is unique. It has 75 pages 3 1-2 x 5 inches, with a cover in two colors, exactly the right size to slip easily into a pocket or a teacher's hand bag, and contains, among other novelties, schedules of Supervisor's visits and teachers' meetings. The aim of this new series of books may be gathered from the following quotations: "It is the aim of the authors to unify drawing and manual training, thereby rendering drawing more practical and manual training more artistic. . . The authors believe that any series of books should supplement, not supplant the work of the teacher. . . Since drawing is a graphic language and

therefore has a technique of expression, it is necessary for one to see good examples of rendering as well as to have oral or written instruction. . . A large drawing on a chart or blackboard is not sufficient inasmuch as it does not show the method of producing the desired effect with the medium in the hands of the pupil. It may show how to make a blackboard drawing but it does not show how to use the pencil or brush in making a small drawing." In looking through the pages of the books, one is impressed with the fact that they do show exactly what the authors claim, namely, good technique. The reproductions throughout, both in gray and in color, are astonishingly faithful to the original drawings. Beginning with the simplest work of the first year children, the books exhibit a carefully graded, logically progressive course through the ninth grade, under the heads of drawing, design, and construction. The series as a whole is marked by a most commendable simplicity of subject and directness of treatment, and by the most satisfactory combinations of color ever published for children to emulate. Color plates usually are too complex. These are so simple and so good in their combinations of two or three tones that the production of crude and inharmonious combinations hereafter in schools where these books are used, would seem to be inexcusable. Such illustrations as the little pitcher in the sixth year book, the group of books and the moonrise in the seventh year book, and the two landscapes in book eight, are good enough to frame and to have constantly upon the wall of ones' living room. One might mention as almost equally praiseworthy the pencil drawings of plant forms, the drawings from common objects, the applied design, and the lettering. In a word, the illustrations in this series of books smack not of the amateur but of the trained artist who has been successful in placing his art at the service of the child.

Spool Knitting. By Mary A. McCormack. 74 pp. 5 x 7 1-2. 45 illustrations. A. S. Barnes & Co. $1.

Those who remember knitting with a common spool with pins driven into the end (and who does not?) will be surprised to see what has been made of this simple device in the realm of modern school handicraft. This book gives no less than thirty-two objects, useful in the child's realm, which a child of ordinary intelligence can make. They range from a table mat to a doll's hammock, and from a washcloth to a school bag. There are clothes for the doll and articles of wearing apparel for little boys and girls, all made with the simple implement which children love to use. It is a book for primary teachers and for mothers who have ever with them the problem of useful occupation for little fingers.

Public School Penmanship. By Albert W. Clark. 162 pp. 5 x 7 1-2. 62 illustrations. Ginn & Co. 80 cents.

Penmanship, one of the venerable arts, has suffered as a public school topic through the frequent changes in method which have run over the country like forest fires during the last ten years. That the old slant system was somewhat illegible and the vertical system somewhat ugly, everybody must admit. That the system known as the medial slant is the solution of all the chirographical problems, only time will prove. At the present moment one is inclined to agree with the critics that the penmanship of our school children combines the vices of both the vertical and the slant systems. This book by Professor Clark, which has the triple purpose of unfolding enough of the theory of penmanship to sufficiently enlighten anyone, to suggest what to teach in penmanship, and to explain how penmanship should be taught in public schools, ought to bring order out of chaos and give legible and beautiful results. It is intelligently written, admirably illustrated, and clearly printed. The book seems to contain about everything a teacher of penmanship needs to know. A good index, in this case difficult to make, would have supplemented the exhaustive table of contents and added greatly to the working value of the book.

RECENT PUBLICATIONS

GHIRLANDAIO. By Gerald S. Davies. The first monograph in English on the life and work of the great Florentine artist. Charles Scribner's Sons. $4 net.

A HANDBOOK OF MODERN FRENCH PAINTING. By D. Cady Eaton. A compact and convenient biographical and critical study of French art from the time of Watteau. Dodd, Mead & Co. $2 net.

NATURE AND ORNAMENT. By Lewis F. Day. Part I. Nature, the Raw Material of Design. Instead of merely revising his "Nature and Ornament" for the projected two-volume edition, Mr. Day has rewritten the work in fuller form, emphasizing especially the ornamental aspect of plant life. Charles Scribner's Sons. $2 net.

VIGÉE LE BRUN. By J. Lemon Hare and Haldane Mac Fall. "Masterpieces in Color" series. Frederick A. Stokes Co. 65 cents net.

THE SCHOOL OF MADRID. By A. DeBernete y Moret. Very little is said about Velasquez, the author's idea being to investigate the works of his pupils, followers, and contemporaries, which are often confused with those of the master. Charles Scribner's Sons. $2 net.

PRACTICAL GUIDE TO THE WILD FLOWERS AND FRUITS. By George Lincoln Walton, M. D. Illustrated in color, etc. J. B. Lippincott Co. $1.50 net.

WOOD TURNING. By George Alexander Ross. The book includes a review of the development of the lathe and its parts, a study of the tools used in turning, an exposition of the various forms of lathe work, and recipes for making and applying stains and waxes. Ginn & Co.

SIXTEENTH ANNUAL REPORT of the Western Drawing and Manual Training Association contains the proceedings of the meeting held at the Central High School, St. Louis, May 1909. The volume, which is a model of arrangement and good printing, is enriched by six halftone plates and several illustrations and tailpieces in the text. The drawing teacher who would keep abreast of the times should look over this valuable report. Copies could probably be had from the secretary, Miss Bertha L. Patt, State Normal School, Cedar Falls, Iowa.

WOODWORKING. By Ira S. Griffith. A second edition has been published by the Manual Arts Press, Peoria, Ill. This edition is an improvement upon the first, not only in its new cover, but in having a complete index which adds greatly to the working value of the book.

EDUCATION FOR EFFICIENCY and INDUSTRIAL EDUCATION. Two addresses by Prof. E. Davenport, of the University of Illinois, have been published in pamphlet form, by the University, and may be had for a nominal price. For grasp of the situation, logic of argument, and force of presentation, they stand in the forefront of the literature of the subject.

MASTERS IN ART for October 1908 deals with Moretto, for November with Millais, and for December with Bastien-Lepage. Among the Morettos reproduced is the famous Justina in the Imperial Gallery, Vienna, and "one of the most delightful of Italian Madonnas," that in the Martinengo Gallery of Brescia. Among the famous works of Millais is to be found the Ophelia and the Lorenzo and Isabella. The place of honor in the Bastien-Lepage number is given to his Joan of Arc. A marked change has come over the spirit of the text of Masters in Art. In place of the almost judicial judgments based on careful consideration of the testimony of all the most worthy witnesses, expressed with thoughtfully selected words used with the utmost precision, we have the brilliant generalizations and conversational English of one who assumes a more personal point of view.

CAMERA WORK, edited and published by Alfred Stieglitz, New York, perhaps the most aristocratic in appearance of all the magazines published in America, contains practically perfect reproductions of the finest work of the most advanced American photographers. Number XXVII exhibits five admirable plates by Herbert G. French of Cincinnati, and four others by Clarence White and Alfred Stieglitz, the best being a portrait of a young woman, Miss Mabel C.

THE KERAMIC STUDIO seems to be increasingly valuable to teachers of design. It is full of suggestions for decorations both with the abstract spot and with floral units, which the bright teacher will be able to adapt to other materials.

THE PRACTICAL TEACHER, of England, presents in its August number a well thought out correlated scheme of work for primary pupils based upon Æsop's fables.

MANUAL TRAINING, of England, is publishing a series of unusual applications in the development of surface by means of cardboard by William Morris.

MONITEUR DU DESSIN gave in its June number a translation of Mr. Bailey's Tree Silhouettes, published by The Davis Press, and reproduced all the drawings.

AN ART-CRAFT INDEX TO THE SEPTEMBER MAGAZINES

PERTINENT ARTICLES

Along the Great Wall of China, William Edgar Geil, F. R. G. S., Harper's, p. 562.
An East-Anglian Painter: Frederick George Cotman, R. I., A. Lys Baldry, International Studio, p. 167.
Antique Needlework of Permanent Beauty, Kathrine Sanger Brinley, Craftsman, p. 702.
Bela Pratt, Christian Brinton, Century, p. 722.
Big Bad Lands, The, N. H. Darton, Scribner's, p. 303.
California Landscapes, Hanna Astrup Larsen, Craftsman, p. 630.
Cardboard Modelling (cont.), Felix T. Kingston, Practical Teacher, p. 137.
Christie Habit, The, Edward Verrall Lucas, Outlook, p. 967.
City Farms and Harvest Dances, Jacob A. Riis, Century, p. 773.
Collection of Hugo Reisinger, II, French, Dutch, Scandinavian and other Painters, Christian Brinton, International Studio, p. lvii.
Egyptian Architecture—Origins, (I), Lewis F. Pilcher, Chautauquan, p. 76.
Evils of American School Systems, The, Parker H. Sercombe, Craftsman, p. 603.
Exhibition of Swedish Applied Arts at Stockholm, The, Georg Brochner, International Studio, p. 202.
Farthest South, Lieut. Shackleton, McClure's, p. 459.
Franz von Stuck: Painter of Fancies, James William Pattison, House Beautiful, p. 87.
From Rothenburg to the Danube, Everett Warner, Scribner's, p. 280.
Fulton's Invention of the Steamboat, Alice Crary Sutcliffe, Century, p. 782.
In Rainbow-Land, Amy Sutherland, St. Nicholas, p. 994.
International Exhibition of Pictorial Photography in the National Arts Club, J. Nilsen Laurvik, International Studio, p. lxv.
London Municipal Arts and Crafts Schools, Ernest A. Batchelder, Craftsman, p. 633.
Mr. Alfred East's Landscape Paintings, Leila Mechlin, International Studio, p. lxxii.
Museum Labels and Labeling, II, Frederic A. Lucas, Printing Art, p. 25.
Museums as Factors in Education, Percival J. Atkins, Practical Teacher, p. 144.
Need of Manual Training in the Development of our Nation, The, Joseph F. Daniels, Craftsman p. 650.
Open-Air Schools Abroad (Illustrations and Notes), Mary A. Banks, Ladies' Home Journal, p. 25.
Papyrus Hunting, Camden M. Cobern, Ph. D., Litt. D. Chautauquan, p. 102.
Pennell's Masterly Etchings of "The American Scene," Current Literature, p. 285.
People of the Totem-poles: Their Art and Legends, Natalie Curtis, Craftsman, p. 612.
Peruvian Craftsmanship, Craftsman, p. 633.
St.-Etienne of Bourges, Elizabeth Robins Pennell, Century, p. 650.
Some Etchings and Lithographs by J. L. Forain, Prof. Dr. Hans W. Singer, International Studio, p. 189.
Some Fundamental Principles of Printing, Edwin P. Grover, Printing Art, p. 18.
Some Notable Paintings at the Seattle Exposition, Ernest C. Peixotto, Scribner's, p. 331.
Story of Dutch Painting, The (cont.), Charles H. Caffin, St. Nicholas, p. 972.
Story of the Nile-Dwellers and Their Land, The (I), James Henry Breasted, Chautauquan, p. 45.
Strangest Watches in the World, The, Joseph Lewis French, Ladies' Home Journal, p. 18.
Tied and Dyed Work, Prof. C. E. Pellew, Craftsman, p. 696.
Work of Finnish Artists, The, Craftsman, p. 645.

ILLUSTRATORS

Abbey, Edwin A., R. A., Harper's, pp. 584, 587, 589.
Auriol, George, International Studio, p. 227.
Blaisdell, E. Warde, St. Nicholas, p. 993.
Booth, Hanson, Circle, pp. 119-121.
Bouguereau, W. A., Printing Art, p. 32.
Bracker, M. Leone, Scribner's, pp. 293, 295, 301, 302.
Brangwyn, Frank, Scribner's, frontispiece.
Brett, H. M., Century, p. 706.
Brown, Ford Madox, International Studio, p. 217.
Bull, Charles L., Circle, pp. 124-126.
Cahill, J. A., McClure's, pp. 544, 545, 547, 549.
Cotman, Frederick George, R. I., International Studio, frontispiece, pp. 167-175, 177.
Craig, Frank, Delineator, p. 197.
Denslow, W. W., St. Nicholas, pp. 989-992.
Dixon, Maynard, Century, p. 778.
Duncan, Walter Jack, McClure's, pp. 485, 488-492.
Elsley, Arthur J., St. Nicholas, frontispiece.
Everett, Walter H., Ladies' Home Journal, p. 39.
Fisher, Harrison, Ladies' Home Journal, cover, pp. 15, 33.
Flagg, James Montgomery, Scribner's, p. 312.
Fogarty, Thomas, Delineator, pp. 206, 207.
Forain, J. L., International Studio, pp. 189-193, 195-198.
Funk, Wilhelm, Century, frontispiece.
Green, Elizabeth Shippen, Harper's pp. 515, 519, 625, 629.
Greiffenhagen, Maurice, Century, pp. 651, 665.
Guèrin, Jules, Outlook, cover, pp. 997-1012.
Hambidge, Jay, Century, pp. 653, 656, 774, 776.
Harding, George, McClure's, pp. 505, 507, 509, 511, 513, 514.
Harker, G. A., St. Nicholas, p. 1030.
Hatherell, W., R. I., Delineator, p. 199.
Hill, Esther P., St. Nicholas, pp. 988, 1016.
Huard, Charles, Scribner's, pp. 330-335, 337, 339, 340.
Justice, B. Martin, Ladies' Home Journal, p. 13.
Keller, Arthur I., Delineator, p. 203.
Kemp, Oliver, Century, pp. 737, 746; Printing Art, p. 40.
Kleinschmidt, Carl, Delineator, cover.
Levering, Albert, McClure's, pp. 520-522, 525-527.
Litle, Arthur, Delineator, p. 205.
Masters, F. B., McClure's, pp. 556-561.
McQuinn, Robert, Delineator, borders and initials.
Merrick, Arthur T., St. Nicholas, p. 990.
Nordfeldt, B. J. O., Harper's, pp. 601-609.
Peixotto, E. C., Scribner's, pp. 258, 265, 267-270.
Pennell, Joseph, Century, pp. 681-684; Current Literature, pp. 286-289.
Potter, Louis, Craftsman, frontispiece, pp. 613-616.
Potts, W. Sherman, Scribner's, p. 272.

Powers, Marion, Harper's, pp. 575, 581.
Pratt, Bela L., Century, pp. 722-724.
Pyle, Howard, Harper's, frontispiece, pp. 506, 534.
Sandham, Henry, Century, pp. 655, 666-670.
Schabelitz, R. F., American Magazine, pp. 433, 435-437.
Schuyler, Remington, Circle, cover.
Sloan, John, Century, pp. 787, 790.
Smith, Howard E., Scribner's, pp. 353, 355.
Smith, Jessie Willcox, Ladies' Home Journal, p. 21.
Steele, Frederick Dorr, McClure's, p. 494.
Taylor, F. Walter, Harper's, pp. 493, 496, 547, 555; Scribner's, p. 329.
Taylor, Horace, McClure's, pp. 475, 477-481.
Taylor, W. L., Ladies' Home Journal, p. 7.
Townsend, H. E., Harper's, pp. 613, 616.
Vanderlyn, John, Century, pp. 755, 758.
William, J. Scott, American Magazine, pp. 471, 473, 481, 484; Century, p. 672.
Warne-Browne, A. J., Printing Art, p. 24.
Warner, Everett, Scribner's, pp. 280-291.

COLOR PLATES

"An Ancient Fort in Suffolk," Frederick George Cotman, R. I., International Studio, frontispiece.
Cover design, Harrison Fisher, Ladies' Home Journal.
Cover Design, Jules Guèrin, Outlook.
Cover design, Carl Kleinschmidt, Delineator.
Cover design, Remington Schuyler, Circle.
"Gentlemen—this concert is about to begin," Oliver Kemp, Century, p. 737.
Gobelin representing a funeral, designed by Ferdinand and Anna Boberg, International Studio, p. 203.
Magazine cover illustration, Printing Art, frontispiece.
"Off the Coast of Devon," A. J. Warne-Browne, Printing Art, p. 24.
Portrait of Ann Seton, Wilhelm Funk, Century, frontispiece.
"She put the silver coronet upon her head," Howard Pyle, Harper's, frontispiece.
"She saw herself for what he had said, and swooned," Howard Pyle, Harper's, p. 534.
The Bathers, Frank Brangwyn, Scribner's, frontispiece.
"The Midnight Court Martial," Howard Pyle, Harper's, p. 506.
Title-page for fashion department, Harrison Fisher, Ladies' Home Journal, p. 33.
"Waiting," Ford Madox Brown, International Studio, p. 217.
"Working and Watching," Frederick George Cotman, R. I., International Studio, p. 175.

NOTABLE DESIGNS

Antependiums, International Studio, pp. 209-211.
Book cover, International Studio, pp. 242, 246.
Borders and initials, Robert McQuinn, Delineator.
Carved frieze, International Studio, p. 226.
Ceramics, International Studio, pp. lxix-lxxii.
Embroidery, Delineator, pp. 219, 227; Ladies' Home Journal, p. 33; design from Filippo Lippi's painting of the Virgin, Craftsman, p. 704.

Gustafsberg Pottery, International Studio, p. 216.
Haida Silver Bracelet of Hawk Design, Craftsman, p. 621.
Haute-Lisse Tapestry, International Studio, pp. 202, 205, 206.
Hudson-Fulton Celebration Spoon, International Studio, p. lxxvi.
Irish Crochet, Delineator, p. 229.
Japanese Stencil Designs, Ladies' Home Journal, p. 43.
Lace executed by Bolognese women, International Studio, pp. 243, 244.
Monograms, Marks, and Ex-Libris, George Auriol, International Studio, p. 227.
Panel for Technical High School, International Studio, p. lxxviii.
Ponchos, Craftsman, p. 690.
Portières, International Studio, p. 212.
Sculptured panel for Railway company's offices, International Studio, p. 216.
Silk Embroidered Cushion Covers, International Studio, p. 206.
Tail-piece, Scribner's, p. 384.
Title-page, International Studio, p. 247.
Trimmings of braid and crochet, Ladies' Home Journal, p. 37.
Wall paper, International Studio. p. lxxviii.
Watches, Ladies' Home Journal, p. 19.

THE SCHOOL ARTS GUILD

I WILL TRY TO MAKE THIS PIECE of WORK MY BEST

The Leader of The School Arts Guild for 1908-1909 is Samuel J. Cohen of the Phillips School, Boston, Mass. Samuel began to be interested in the Guild two years ago. He won a fourth prize for his work in November 1907, a third prize in February 1908, a second prize in January 1909, and the first prize in June 1909. As the awards indicate, his work has steadily improved. It is this persistence and growth that The School Arts Guild was designed especially to encourage. Too many young students seem satisfied when they have attained a badge. Occasionally those who have attained an award fail to make record of it upon future drawings submitted in the contests. Sometimes we happen to remember the name and so give proper credit, but this is more than could be demanded of ordinary human nature every month and therefore some pupils fail to have recorded the cumulative evidence of their ability; but Master Cohen never forgot. His sheets were all correctly marked, and therefore received full justice upon the records of the Guild. The following letter has been sent to Master Cohen:

This certifies that in the Monthly Contests in Drawing and Design maintained by The School Arts Book during the school year 1908-1909, and participated in by about 17,000 school children in the United States, Samuel J. Cohen of the eighth grade in the Phillips School, Boston, Mass., won the largest number of awards and by virtue of his increasingly excellent work is entitled to the honor of Leader in The School Arts Guild. Should Master Cohen, after completing his public school courses, decide to enter an Art School, this record is worthy to stand as a testimonial to his ability as a student, and as a recommendation to the Art School authorities.

For the Jury of Awards,
Henry Turner Bailey,
Editor of The School Arts Book.

JUNE CONTEST
AWARDS

First Prize, Book, a copy of "Thirteen Good Animals," published by The Davis Press, and Badge with gold decoration.

***Samuel J. Cohen, VIII, Phillips School, Boston, Mass.

Second Prize, a set of "School Arts Sewing Cards," published by The Davis Press, and Badge with silver decoration.

Grace Ennis, VII, Pleasant St. School, Westerly, R. I.
Lillian McConchie, V, Liberty School, Englewood, N. J.

*A winner of honors in some previous contest.

Fred Moore, VII, Highwood School, Englewood, N. J.
John Nye, V, Park Ave. School, Westerly, R. I.
Lesa Pender, IV, Fremont School, Stockton, Cal.

Third Prize, a set of "Trees in Silhouette," published by The Davis Press, and Badge.

Marjorie Berdan, IV, Ridgewood, N. J.
Helen Bogert, VII, Highwood School, Englewood, N. J.
*Semilda Boulet, IV, White Rock School, Westerly, R. I.
*Amy Chapman, VIII, Avondale School, Westerly, R. I.
Helen Crathern, VIII, 1111 Washington St., So. Braintree, Mass.
Winifred Howland, VIII, Noah Torrey School, So. Braintree, Mass.
*David Malkiel, VI, Phillips School, Boston, Mass.
Elwin J. Miner, III, Frankton School, Shelburne, Mass.
Hope Noyes, VII, Pleasant St. School, Westerly, R. I.
Cornelius Walsh, I, Ridgwood, N. J.

Fourth Prize, The Badge.

Joseph Ashworth, VII, Pleasant St. School, Westerly, R. I.
Lois Bowen, V, Webster School, Auburn, Me.
*Ray Carpenter, VII, Centre St., Bristol, Conn.
Josephine Chandler, VII, Webster School, Auburn, Me.
*Eben Crockett, V, Park Ave. School, Westerly, R. I.
Thomas Dibble, IV, Franklin School, Englewood, N. J
Rachel Ewing, VII, Florence, Mass.
Eddie Ferare, V, Pleasant St. School, Westerly, R. I.
Jennie Ferare, IV, Pleasant St. School, Westerly, R. I.
Henry E. Filion, III, Frankton School, Shelburne, Mass.
Charlotte Frazier, VIII, Noah Torrey School, So. Braintree, Mass.
William Geissweit, VII, West St., Bristol, Conn.
Gertrude Kenney, VIII, Monatiquot School, Braintree, Mass.
James Park, VII, 91 Main St., Reading, Mass.
*Mildred Plummer, 16 Grove St., Augusta, Me.
Lillian May Thatcher, Albany, N. Y.
Olive Tibbs, III, Ridgewood, N. J.
Helen Van Emburgh, I, Ridgewood, N. J.
Garland Wilcox, VII, Pleasant St., Bristol, Conn.
Mina Wright, III, 146 N. Union St., Stockton, Cal.

Honorable Mention

Pauline L. Adams, Lawrence
Cecilia Aderstrand, Englewood
*Leroy Annis, So. Braintree
Martha Baldwin, Englewood
I. Norma Beckwith, So. Braintree
Willis Berry, Stockton
Agnes Burke, Florence
Helen Byrne, Lawrence
Warren Clapp, Braintree
Alice Coughlin, Florence

*A winner of honors in some previous contest.

Albert de Mars, Lawrence
Harold W. Eastman, Lawrence
Laurie F. Gibbons, Reading
*Frank Gomena, Westerly
Verna Graichen, Lawrence
Calvin Green, Ridgewood
Cora Hasty, Auburn
Clarence Hedland, Englewood
Arthur Higgins, Lawrence
Elsie Hobby, Reading
Edison Holt, Stockton
Gladys Hosford, Florence
Wilson Hunter, Albany
Mildred C. Hutton, Lawrence
Dorothy J. Hyde, Granville
Lillian Johnston, Oklahoma City
Edwin Koehler, Lawrence
Irene Langevin, Braintree
Grace McClelland, Albany
Constance Miller, Stockton
Richard Murray, Auburn
Mary Nigrelle, Westerly
*Grace Noble, Florence
Philip Pingree, E. Braintree
Burton T. Smead, Shelburne
Agnes Stasek, Oklahoma City
Josephine Swift, Auburn
Dorothy Taylor, Englewood
*Sylvia Vordermeier, Englewood
John Walsh, Reading
*Alice Whittier, Lawrence
Helen Wurster, Stockton
———, H, Lincoln School, Englewood, N. J.

SPECIAL PRIZE

Tree Silhouettes

*Solomon Malkiel, VIII, Phillips School, Boston, Mass.

Thanksgiving and Christmas Packets

Eighth Grade, Noah Webster School, Hartford, Conn. (For booklet "Ye Olden Days.")
Ninth Grade, Noah Webster School, Hartford, Conn. (For graduation program.)

The work submitted for the June Contest, while small in amount, was unusually good in character. The booklets, Mary's Garden and others of original design made up of drawings of the spring flowers, were especially well made. Another notable feature was the graduation programs from different parts of the country, the programs themselves being printed on the printing press and bound in decorative covers in color, designed and made by the pupils. Such practical problems should be multiplied.

The cross stitch designs worked out in appropriate material were better this year than last. Gradually the Fourth-of-July coloring, fantastic design, and beribboned bindings are disappearing. The doing of a thing in the simplest, most direct, unobtrusive, and tasteful fashion is the ideal of The School Arts Guild.

Please remember the regulations:

Pupils whose names have appeared in The School Arts Book as having received an award, must place on the face of every sheet submitted thereafter

*A winner of prizes in some previous contest.

a G, for (Guild) with characters enclosed to indicate the highest award received, and the year it was received, as follows:

These mean, taken in order from left to right, Received First Prize in 1905; Second Prize in 1906; Third Prize in 1907; Fourth Prize in 1906; Mention in 1907. For example, if John Jones received an Honorable Mention, thereafter he puts M and the year, in a G on the face of his next drawing submitted. If on that drawing he gets a Fourth Prize, upon the next drawing he sends in, he must put a 4, and the date and so on. If he should receive a Mention after having won a Second Prize, he will write 2 and the date on his later drawings, for that is the highest award he has received.

☞ Those who have received a prize may be awarded an honorable mention if their latest work is as good as that upon which the award is made, but no other prizes unless the latest work is better than that previously submitted.

☞ The jury is always glad to find special work included, such as language papers upon subjects appropriate to the month, home work by children of talent, examples of handicraft, etc.

☞ Remember to have full name and mailing address written on the back of each sheet. Send drawings flat.

☞ If stamps do not accompany the drawings you send, do not expect to obtain the drawngs by writing for them a month later. Drawings not accompanied by return postage are destroyed immediately after the awards are made.

☞ A blue cross on a returned drawing means "It might be worse!" A blue star, fair; a red star, good; and two red stars,—well, sheets with two or three are usually the sheets that win prizes and become the property of the Davis Press.

THE HARVEST FIELD
By Walter Sargent

The School Arts Book

AN ILLUSTRATED MONTHLY MAGAZINE for THOSE INTERESTED IN DRAWING *and the* ALLIED ARTS

HENRY TURNER BAILEY
EDITOR

September to June inclusive $1.50 a year, in advance

VOL. IX NOVEMBER, 1909 NO. 3

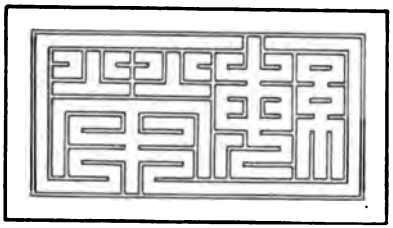
Entered at the Post Office at Worcester, Mass., as second class matter, August 17, 1903

CONTENTS

To Students of Design — Lewis F. Day
Design and Two Trades — Grace Wilson Ripley
A Model Stand — Royal B. Farnum
The Agassiz School Experiment — Frank M. Leavitt
The Unbacked Book — Evelyn M. Griswold
Annotated Outlines, December, with Illustrations, Reference Material
The Workshop—Woodworking—Elephant — Frank G. Sanford
Weaving—Indian Blanket — Katherine F. Steiger
Sewing—Peasant Costume — Blanche E. Hyde
Metalry—Scarf Pin — Augustus F. Rose
Editorial: Thanksgiving in the City and Country, etc. — Editor
Helpful Correspondence School Arts Guild The Arts Library
Reliable Advertisements Trade News

Published by THE DAVIS PRESS, Worcester, Mass.

COPYRIGHT, 1909, BY THE DAVIS PRESS. ALL RIGHTS RESERVED.



PROSPERITY! PROSPERITY! is the meaning of this Japanese symbol. It is the symbol of the abundant prosperity of our country, for which we all should be thankful.

THE DECEMBER NUMBER will contain an interpretation of The Sistine Madonna, by Mr. Bailey; Suggestions for Christmas Pen Work by Mr. Hall; several illustrated articles on Christmas handicraft; Mr. Boone's second article on Pottery Craft; and beautiful Christmas designs by George Koch of Mystic, Conn., and Henry G. Keller of Cleveland, Ohio.

Gentlemen and ladies say
Thank you,—even to God.

The School Arts Book

Vol. IX NOVEMBER, 1909 No. 3

TO STUDENTS OF DESIGN*

ARTISTS differ, of course, as doctors, even doctors of science, differ; but on the broad facts of good design, good craftsmanship, and so forth, they are quite as much of one mind as men of science—however differently they may express themselves. I believe that most artists would be with me in what I have to say out of the experience of a working artist. Science has a direct bearing upon art, and especially upon design. I suspect it will be more of a surprise to students of art than to students of science to be told that there goes to design a certain element of science. I don't say it goes equally to all art. Science, they say, is systematized knowledge; and the artist does not work by system; but it is those who have some method in their madness who arrive; and the greatest artists—the Michael Angelos—achieved what they did because they were something more than artists.

The relation of design to handicraft is obvious. There is no artistic handicraft which does not presuppose design, and no practical design which is independent of conditions of execution—that is of handicraft. Design does not begin to be practical until it takes account of execution. Every design is properly the solution of a problem—technical or artistic—ordinarily both at once—how under given conditions to produce a thing of beauty. For remember, art makes for beauty, may be of a modest kind, better perhaps of a modest kind, but always for beauty. That is nowadays often overlooked—sometimes even denied. But, all the same, it's true—and if it weren't, what would be the use of art? . . . . . .

*The principal part of an address to the students of the Sir John Cass Technical Institute, England, on the occasion of the Annual Prize Distribution, Dec. 16th, 1908.

We make a great fuss sometimes about the historic derivation of familiar ornament, and the influence of one time or country upon another. And that, too, is interesting. But in many a simple craft—such, for instance, as working in filagree—we see, without possibility of doubt, how the pattern grew out of the craft, how workers in wire, for example, could not help happening upon those patterns—and how, no matter where they worked, or when they were working, they arrived perforce and independently at almost identical results. In the same way our great-great-grandmothers arrived at needlework far more truly artistic than much that goes by the name of art needlework—though nothing would have surprised them more than to have been told they were artists. Probably it would have shocked them very much.

Here, then, is the beginning of design. The craftsman has only to manipulate his material and to do what his tools suggest, and he arrives at something—possibly quite satisfactory—certainly appropriate to metal work, needlework, or whatever it may be.

It seems, then, that design is within the scope of any and every worker. He may feel himself empty of invention, he may know himself absolutely incapable of putting anything down adequately on paper—and yet there is within his reach, and easy reach, an infinity of beautiful pattern, which is, for many purposes, as far as design has any occasion to go. That is, in point of fact, as far as the craftsman, as such, need go. But this much—I am afraid it is necessary to say—is only the beginning of design; and the system of design-teaching founded more or less upon what "happens" is admirable only as the introduction to design, to the art of design I mean. That does not come by playing about with units in the hope of something happening. It is not a matter of accident, but of purpose. Playing with "units" is after all play—and child's play, compared

with serious design. That is play, too, if you like; but it means playing the game—playing it according to strict rules. Mind, there is no winning without playing the game. And where would be the satisfaction in winning without playing it?

Serious design only begins when the workman, having realized the way that patterns are built up, and learnt by experience the kind of forms that lend themselves to his purpose, plans the structure of his pattern and invents the details of it. He sees beforehand what he is going to do. And, by way of seeing it clearly, puts it down on paper—not every item of it, perhaps—there are details best left to the spur of the moment, if he is going to execute it himself, and some which must be left to be worked out in execution—especially in some forms of metal work.

It is the fashion just now to decry "paper" designers. As one of them, I cannot, naturally, join in the chorus of abuse. When it comes to anything above design so humble that it scarcely counts for design, paper seems to me a necessity. (I say paper, because my own work happens to be mostly on paper; but modelling-students have only to read for paper clay or wax, and what I say applies to them equally—or nearly so.) Putting it on paper helps the designer to see his design in advance. It enables him to test it, to amend it, to play variations on his first thought, to bring it to perfection—and that without the loss of time and waste of material involved in actual experiment. If there is any difficulty in it that can only be solved by actual experiment—well, he can make the experiment while the design is in progress; but an accomplished and experienced designer forsees the execution of his work. That is really the difference between him and the craftsman (of course the two may be one). The artist who never knows what he is going to get until he has got it, is hardly a designer—though he may arrive at design. . . . . .

Every workman has in him something of design—enough to serve him in his work; but he is not therefore a designer. We have most of us, let us hope, some touch of poetry in our composition; but how many of us are poets? There are people who think that everyone would be able to design if only he were left to himself. Education is supposed to be the blight of invention! Nothing of the kind. Invention is, and always will be, a very rare thing; and if right education fails to bring it out, it is simply because it wasn't there. . . . . .

Now, the quality of qualities in Design is Fitness. The only design worth looking at is that in which fitness is observed, in which the treatment is appropriate. You learn to appreciate that in the practice of a craft. You learn to appreciate it better still by the study of what, so far, good workmen have done.

Oh! but Nature, you say, is the source of it all. Yes—the study of Nature goes without saying. And it is so universally enforced that there is no need to dwell upon it here. What is not so generally insisted upon is the necessity, not only of treatment (it is impossible to overlook that in a craft school) but of the study of what from first to last has been done in the way of design. Emphatically Nature is not enough. It does not teach you the use to make of Nature. That you learn of art, from the work of others, and most readily from old work. I urge you to study that for all it is worth—and it is worth almost everything—not because it is old, but because time was when conditions were more favorable to design, and because what is old has been so thoroughly sorted out by time, that it is mainly the best that survives to this day. And, if nature is not enough, neither is the workshop enough: there are many more kinds of treatment than it is possible to practise in any one workshop or in any school.

You will in the end adopt your own treatment. You are you, and you live in the 20th century; but until you know what

has been done, and how it has been done, and why it was done, you are hardly in a position to know what to do, or how best to do it. Invention itself is not so independent of all that has gone before as you may imagine. When students think they are most original they are often only doing what everyone else is doing, what is in the air. Don't bother about originality—and don't be afraid of not being new. Novelty is not worth the price of beauty, which is commonly paid for it. It is of no use trying to be new; the thing to try for is good work, beauty, the right solution of the problem before you. And never mind who says your work is not modern—if it is good. If there is grit in you it will be modern. . . . . .

The fact is, there are two kinds of persons: to one the thing done by another suggests the doing of something like it—imitation; to the other it is a challenge, provoking opposition. If you belong to the one class, teaching will, of course, fail to bring out what is not there; if you belong to the other, the example set before you will be an irritant exciting you to do something else. . . . . .

What does hamper design and destroy originality is the constant and deliberate imitation of something done—spoiling a good thing, as someone said, and calling it your own.

As with old work, so with Nature. In designing, never copy; don't work from the model, nor yet from your drawings of it, but from memory—that alone is plastic enough for the purpose of spontaneous design.

If only to cultivate your taste, upon which, in craftsmanship, so much depends, go to the museums. Lose no opportunity of study. Don't imagine you can do without the impulse and enlightenment that come from the loving study of the best. And it is not only art that counts—its practice, its history, the theory of it—but wider all-round education. Especially if you

mean to design, you must train your wits as well as your eyes and hands. Art is very much a matter of the senses. There are arts in which it is permitted to be rather stupid; but design is a logical faculty, making demands upon the reason. It wants brains. . . . . .

Artists are too much given to railing against "commercialism," even those of them who have a keen eye to the main chance. Is not every artist in a sense a tradesman? Doesn't he produce something for sale, and get the best price he can for it? unless, indeed, he is one of those impossible people who think that art is an excuse for everything that makes for bad citizenship. For once, let an artist own there is not so much amiss with commerce. The mischief is that we are apt in these days to lose sight of all but commerce. The root of the evil is the magnitude of modern commercial transactions. They necessitate a man of business at the helm—and he steers carefully clear of the difficulties of art. That being so, there seems room, also, for production on a scale modest enough to allow of artistic conduct.

The more purely commercial manufacture becomes, the greater our artistic discontent with it; and the greater the necessity that we who care for it should cherish what remains of art and craftsmanship, should take care of it, plant it in favorable soil (say, here at Aldgate), tend and cultivate it (in this Institute, for example) and create for ourselves, here and there, some little oasis in the desert of utilitarianism, where the craving of those who thirst for the beautiful may still from time to time be satisfied.

Men do not realize (or act as if they didn't), all that they have sacrificed, and are sacrificing, in the interests of trade—the beauty of the world we live in, the satisfaction of doing good work, the joy of life depending on that beauty and that satisfaction.

Only think what the divorce of art from handicraft means to us! It means the loss of all delight in making, of all joy in

the possession of things made! And what a joy it is! Talk of the pursuit of pleasure! it is nothing to the pleasure of pursuit, a pursuit one can be proud of.

It takes perhaps a maker of things to relish all the joy of doing. And the better the maker the greater his delight in making. Selling is by comparison a sordid pursuit, buying an idle one. In making a man is at his best, his manliest.

But this high estimate of making implies *well* making. There is no sort of satisfaction in making ill. . . . . .

Think, then, what a serious thing it is when industrial conditions make it ever less and less possible for a man to like his work, or take pride in it. Once separate business from pleasure, and you eliminate art from workmanship. . . . . .

The whole argument for technical training is just this—that, though the trade outlook is too narrow, academic education is too diffuse to be of all the use it might. The idea used to be: "give young people a good education and they are fit for anything." Yes; for anything except earning a living! That is the point at which craft schools come in. The nearer, therefore, they approach the workshop the better. I mean, of course, the ideal workshop—the sort of workshop that never existed and never will—a workshop where the master's first and only thought is good work; where the manager's one endeavor is to teach the workman how to do it; where each foreman is not only a specialist in his own department, but an artist or a man of science too. Fancy working in such a shop! What an education!

. . . . . .

It will not do to take too narrow and "trady" a view of education. There could be no greater mistake on the part of trade students than not to work at drawing, modelling, and design. They may not see the use of it; but it is a most valuable part of technical education. . . . . .

I don't want anyone to think that art or craftsmanship (or anything worth doing) is easy—that any success worth having is to be reached without hard work, without grinding at studies that are in themselves without attraction. I want students to take up the work they care for, and to care for it so much that they are willing to go through the necessary drudgery for it. We talk of men choosing a profession or trade; but, in the case of those who are to go furthest, it is the profession or trade that chooses them. They take to it, not because it is pleasant or easy, or because there is money in it, but because they are drawn to it; they can't help it. An artist takes to art, a scientist to science, because that is the work he feels to be his.

And, just as there is no satisfaction greater than that of doing the work it is in you to do, so there is no surer way to success than the taking up of that work. If the drudgery it involves deters you, then you may suspect it is not your work. The born workman is not easily scared from his work. On the other hand, it will never do to be faint-hearted. If your work is a pleasure to you, stick to it. Whatever the hindrances to success, devotion will overcome them. In work, as in life, it is true that "love will find out the way."

It follows that if you love your work you will be content with nothing short of good workmanship and workmanlike design. Honesty, they say, is the best policy; but if it is only policy it hardly amounts to much in the way of honesty. "Who wants good work?" it may be asked; "they want it cheap!"

Whether it is wanted or not, whether or not you get credit for it or advantage by it, you will persist, nevertheless, in doing your best, if only for your own satisfaction. To be satisfied with less is to shut out all hope of higher things. Stop at what will "pay," and you will stop short of what is art.

Men with their living to earn can't, I know, disregard the economic side of work. But, apart from the fact that it is art which in the end raises craftsmanship to its full height, it is something more than what is done for a wage that in the end makes for good wages. . . . . .

I have already pronounced against the theory that education is a check on originality. It checks a good deal that is in need of checking—that is one of the uses of education—but that it is seriously detrimental to originality is not true. There is no keeping originality under. It will out, as sure as murder. That it does not come out in more cases than it does is because it is in the nature of things rare. If it were the common thing some people seem to imagine it is, we should think nothing of it. All this fear of extinguishing the fire of invention implies only the feeblest spark of originality. If it is so feeble as all that, why nurse it so carefully? The first puff of adversity will blow it out. The originality which is worth preserving wants no coddling.

And what is more, original minds don't think much about originality. They are original—often without knowing it. A poet once said, that you had only to write your grandmother a letter, and he could tell from it whether you were a poet. Don't imagine, then, that you are only a poet when you are writing an epic, only an artist when you are producing a masterpiece, only original when you are doing something no one ever did before. . .

Time only will show which are the great artists, the great inventors and discoverers. They will come to their own in due time; they have only to stick to their work, to think of that, not of their possible greatness. The true ambition is to do, not to win prizes, either in the world or at school.

LEWIS F. DAY
London, England

DESIGN AND TWO TRADES

BEFORE planning a course in design for the Boston Trade School for Girls, I first talked with a great many dressmakers and milliners, in order to discover what artistic training or native artistic ability each one had, which contributed to her success. In the first place I found that almost all dressmakers and milliners make sketches from memory or directly from the model, and they all said, either "Yes, I can draw quite well, I am thankful to say," or—"I wish that I had been taught to draw better." And so sketching was made one of the fundamental features of the Trade School design course.

Little by little the artistic needs of dressmakers have revealed themselves, and one by one new problems have been incorporated into the course. Fundamental art principles remain the same, but styles and human fancies change with the seasons, so we change the surface form of our problems, still holding fast to our principles of good design, while submitting to the demand for something new that we find in the world of fashion. This makes us observant and wide awake, and is a good thing after all. We can stick to our principles and yet change our products, even as a chameleon can change his color to correspond with his environment, and yet remain without doubt a chameleon.

Quick sketching from models and memory sketching becomes an exciting pastime when made at an "opening" of new waist, tie and hat models. Great skill of hand and wonderful visual memory can be cultivated by exercise, and it usually happens that pupils who have a firm belief that sketching is impossible to them, forget themselves in the interest of the "opening," and learn to sketch rapidly and well. (See Fig. 1.) I have always found the shops willing to lend their stock for these simulated openings, for the sake of "helping the children."

It is very necessary for incipient dressmakers and milliners to cultivate their imaginations, if they are to be anything more

A sketch at an "opening" of hats and a sketch showing the same hat in use.

in the trade than just blind followers all their lives. There is no better way to do this than to invent designs.

Embroidery is used by both dressmakers and milliners and should be understood by them. One of our first problems is the arrangement of embroidered dots or spots on bands for trimmings, Fig. 2. There are no abstract problems nor abstract spots for dressmakers and milliners and there are none in our design course.

The materials used by the best dressmakers and milliners are kept constantly before the pupils in their design class and are studied and analyzed for color, design and texture. Each

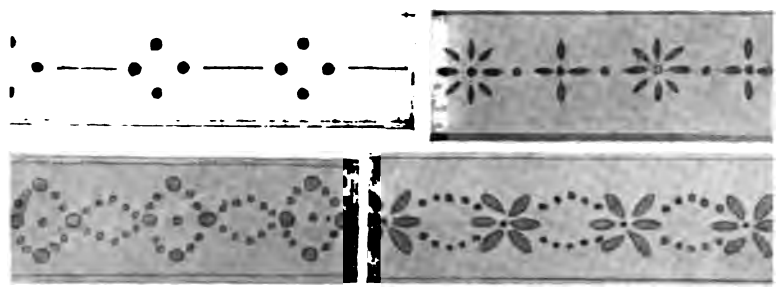


Figure 2. One of the first problems in design is the arrangement of embroidered dots or spots on bands for trimmings.

design problem is worked out in relation to the material which is intended for use in its execution. Hamburgs and laces are studied and designs made involving their use. Original designs are also made for textiles and hamburgs and an effort is made to improve on the trade designs.

Occasionally we adapt a single design for use on four or five different patterns as a corset cover, hamburg-edged ruffle, neck jabot, collar, shirtwaist, etc., and thus obtain a harmonious "set." (See Fig. 3.) At first only the round or oval spot and line are used for motives, so that the whole mind may be concentrated

on arrangement alone; later we use flower forms, Fig. 4, and even a butterfly occasionally creeps in.

We sometimes construct models in tissue paper, Fig. 5, and paint our design upon them in chinese white or color, so

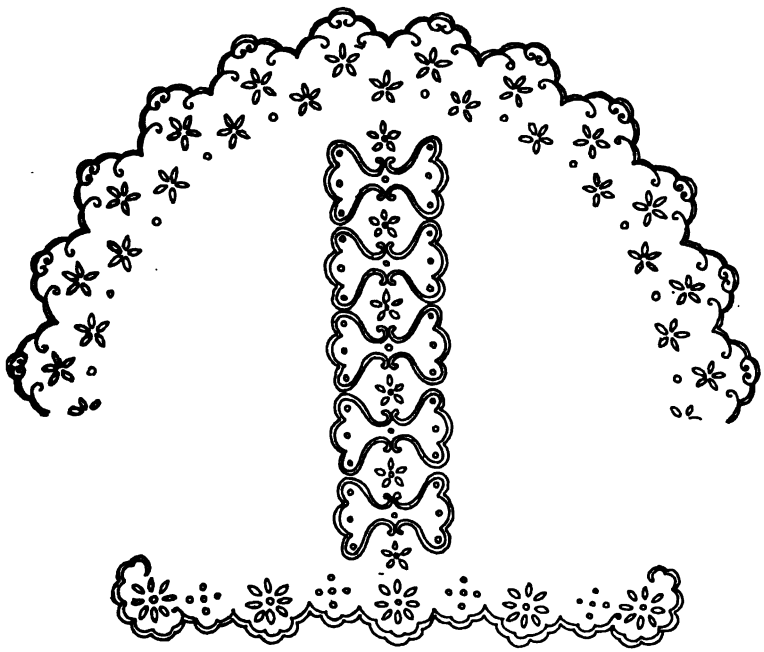


Figure 3. Similar elements adapted to different parts of the costume. (a) Design for the brim of an embroidered hat, by Margare Weisman. (b) Design for a band of ornament for a shirt waist, by Elsie Foster. (c) A collar design, by Margaret Dechaut.

that the whole effect of the design may be obtained, and also so that the pupils may get practice in cutting and tucking and spacing.

We use samples for matching and combining colors. Bits of trimmings and beautiful fabrics are obtainable from dressmakers and milliners.

We exercise the choosing ability as much as possible in the design course, as it is the dressmaker's and milliner's constant task to choose the best from material which is available.

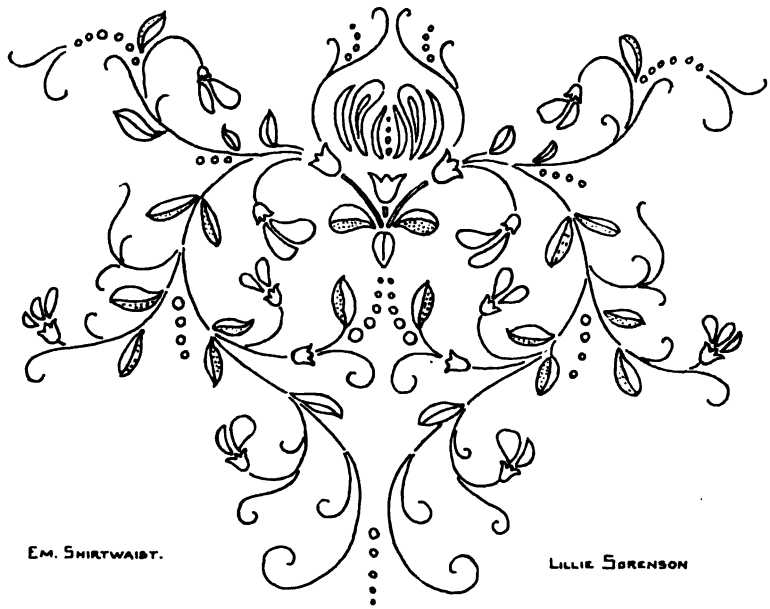


Figure 4. An original design for shirtwaist decoration utilizing natural forms, by Lillie Sorenson.

It is difficult to make costume designs and yet almost anyone can learn to make intelligible ones. Dressmakers and milliners must make them to some extent. Certain principles which we wish to teach in the Trade School cannot be taught except through

making costume designs, Fig. 6. Even the least skilful pupil can usually manage to do it in some way, though some will to the bitter end show a tendency to draw a side-view dress on a front-view figure, à la Egypt.

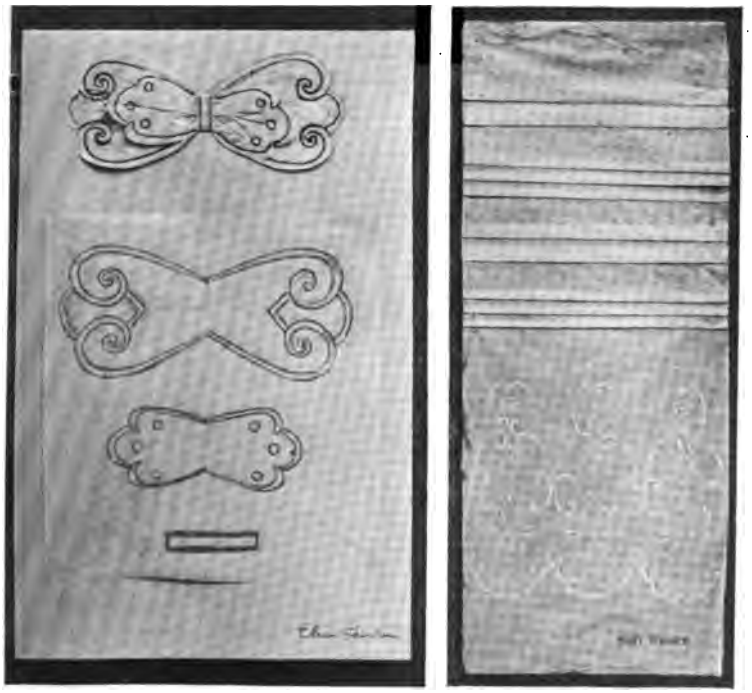


Figure 5. Designs worked out from tissue paper to give practice in cutting, tucking, and spacing.

First we do a great deal of copying and selecting and thinking, and then we each make a paper doll representing ourself, strictly front view, and proceed to create a wardrobe for this

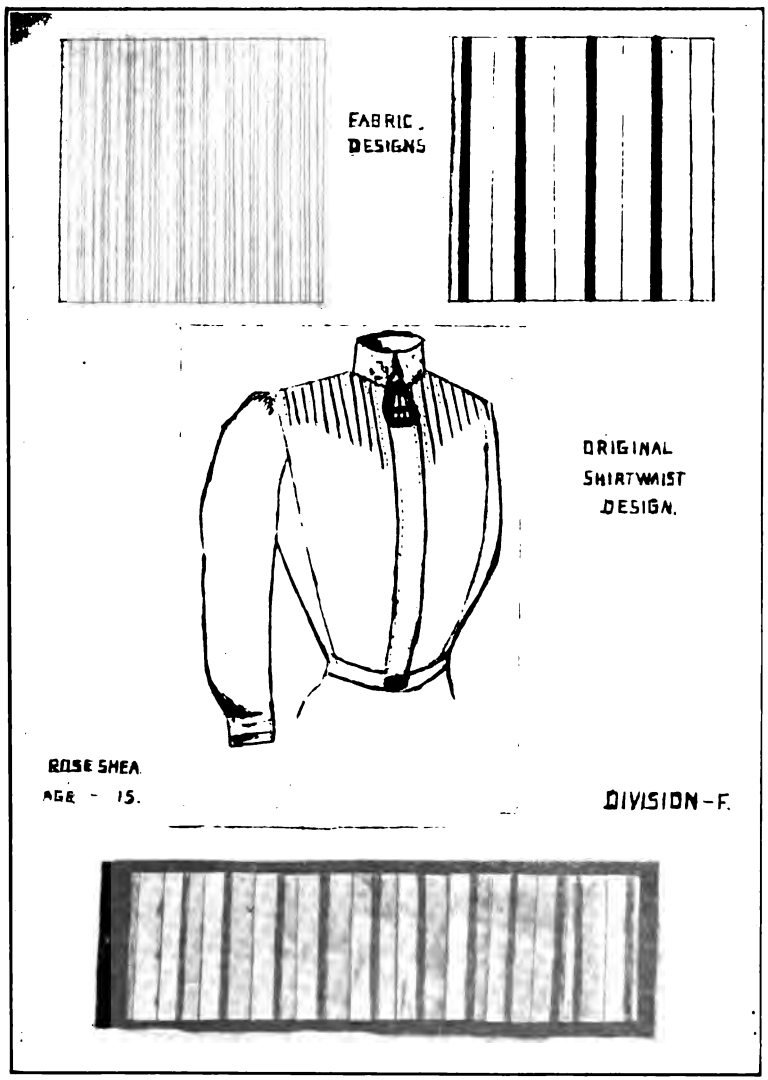


Figure 6. A complete set of designs from fabric to completed costume. The lower design shows the goods plaited from tissue paper to bring out a new stripe pattern formed over the shoulders.

paper doll self, from the fundamentals clear through to the hat, both for summer and winter, for fair weather and foul, for the joyful occasion, and the humdrum shop. In connection with this work many interesting problems come up and are discussed.

Prospective dressmakers and milliners go through the same art training at the Trade School, for is not the success of the hat dependent on its relation to the costume with which it is worn, and must not the dressmaker also consider so important and crowning a glory as the hat?

Problems in braiding designs are difficult but interesting and awake a vivid interest in classic designs in straight and curved lines, which of course makes us want to go to the Art Museum and find out more about these designs, and we always do go, and have a wonderfully interesting time, thanks to the splendid hospitality of the Art Museum authorities. It is very exciting to see our favorite braided design adorning the Parthenon. Shades of the classicists, do you realize that we use the Greek elements for our hamburg designs and that the Egyptian motives make lovely stencils for chiffon scarfs?

In our work we begin by knowing the little, and gradually work outward toward a knowledge of the larger beauty of the world of art. From the small concrete problem we look up to a better understanding of the beauty of all things, in a world where nothing is either great or small, except as thinking makes it so.

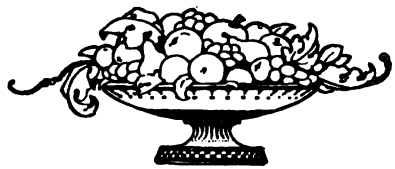
It has been my pleasure during my four years in the Trade School to take many girls to the Art Museum for the first time. In hardly any case has that first trip been the last. We have begun to visit shops and plan shopping tours which will tend to broaden horizons and raise ideals. Dressmakers and milliners should be fed on beauty as much as possible, because of the tremendous power they wield for beauty or for ugliness.

The Trade School provides a one-year course for its pupils and during their whole course they have two design lessons of one and one-half hours each week. Many designs made by the pupils are worked out in connection with their regular work.

The end and aim of the art course is the cultivation of the imagination, discrimination and taste.

GRACE WILSON RIPLEY

Boston Trade School for Girls
Boston, Massachusetts



A MODEL STAND

"NECESSITY is the mother of Invention," an oft repeated proverb but, like the four seasons, ever new. Of course a model stand is no new thing but ours is original in design and consequently of more or less invention.

We felt, in the Normal Class of the Cleveland School of Art, that we must have some kind of a stand upon which we could arrange our still-life studies and also a screen for hanging our work for criticism and other purposes. No money seemed to be forthcoming so we decided to make it.

A model stand and screen in one—that was the problem, to be worked out by the students as a lesson in constructive design. Each one submitted a working drawing of at least two views and a perspective sketch showing how it would look when finished. The results were looked over, criticized, and the best points in each incorporated in the one we were to make.

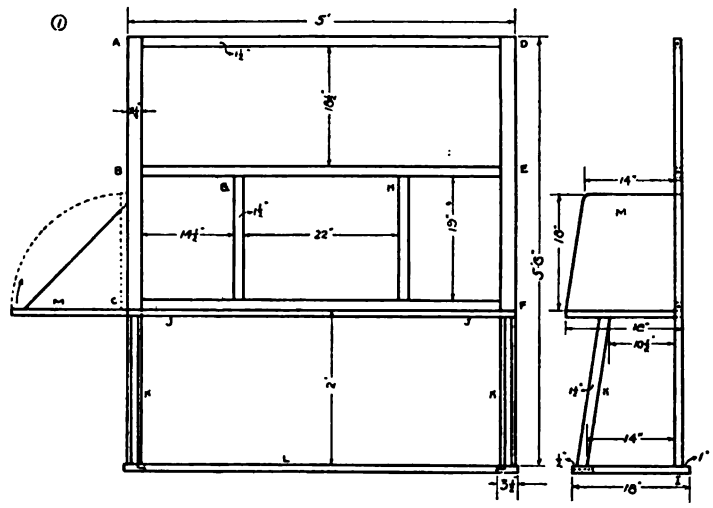
Such questions as these were carefully considered before final proportions were decided upon,—Will it serve absolutely the purpose for which it is intended? What proportion will look well in the class room? Will it be low enough to allow for hanging space on the walls at our annual exhibition? Will it be convenient to move about in order to obtain different lightings on our groups? Is the shelf low enough for studying our perspective problems? Is it high enough to allow for viewing illustrations hung upon the screen from any part of the room?

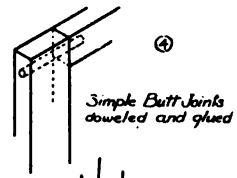
After satisfying ourselves upon these points (as well as many others) we made one complete drawing of the perfected stand. Plate I, Figs. 1, 2. Then one student was allotted the task of making out the Bill of Stock. This done we were ready to purchase the necessary materials, lumber, screws, etc., and make the stand.

The Lumber. Poplar seemed to be most desirable, being light and fairly inexpensive for wood in these days. Again, it

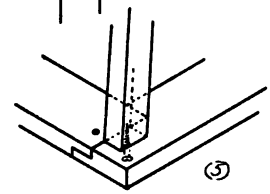
-MODEL-STAND-

Stock - 1" Poplar

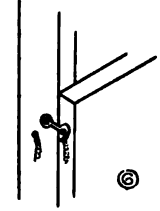




Simple Butt Joints doweled and glued



Detail of construction at base of Stand



Method of fastening end shelf for casting shadows on still-life groups

Designed and constructed by the Students of the Normal Class in the Cleveland School of Art - Cleveland - Ohio - To serve the two-fold purpose of Model Stand and Screen. It was essential to make it extremely light doing away with all unnecessary detail or decoration. Poplar was used. Joints were assembled at the base with screws - at the cross-pieces with ½" dowels, also glue.

③

Bill of Stock

2	pieces	2½" x 5'6"
-	-	3½" - 18"
-	-	1½" - 19"
-	-	1½" - 2'
3	-	1½" x 9' 7½"
1	-	3½" - 9' 8½"
1	-	1½" x 6½"

PLATE-I

is a good wood in which to work if well-seasoned and smooth grained. As we couldn't get strips the widths we desired wider boards were bought, necessitating the use of the rip saw in getting out the pieces. This scheme isn't always advisable for, as one student remarked, "Each strip contained different curves donated by all who used the rip saw." Still they learned most thoroughly its use.

Dressing up the Pieces. From the Bill of Stock, Fig. 3, each piece was laid out, sawed, planed, and sandpapered, ready to put together. This required the use of the marking gauge, plane, cross-cut saw, try square, block plane, muscles, and brains. Then it was ready to put together.

Constructing the Stand. Holes were bored, A, B, C, D, E, F, Plate I, in each of the uprights the size of our dowels, 1-2″, which had been cut in 6″ lengths, and at distances given in the drawing. Holes were also bored in the ends of the horizontal strips from 2″ to 3″ deep. Glue was applied, the dowels driven in as far as they would go,

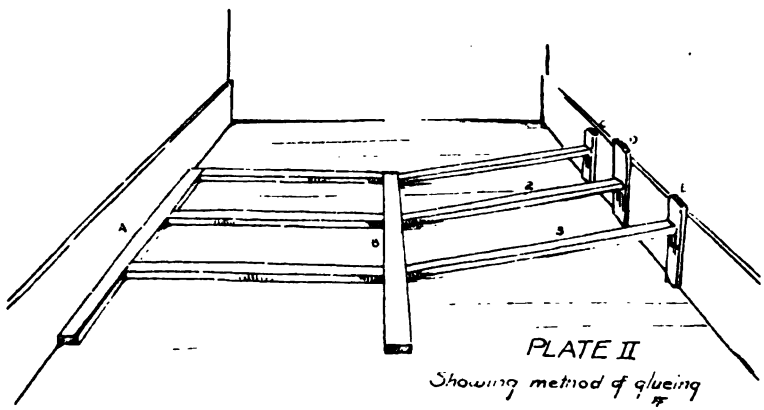


PLATE II
Showing method of glueing

and the ends cut off, Fig. 4. The flat frame was then placed upon the floor, Plate II, with one side, A, against the wall of a room which in one part is quite narrow. Pieces of wood, C, D, E, were placed vertically against the opposite wall for protection, and, wedged tightly between these and the other side of the frame, B, were other strips, 1, 2, 3, drawing the joints tightly together. The smaller vertical strips, G, H, were then placed in position and held by glue and long wire nails, as there was very little pressure bearing on them and stronger joints seemed unnecessary. When perfectly dry the base pieces were screwed to the legs of the frame, Plate I, I, the shelf screwed from underneath to the lower horizontal bar, J, J, and the slanting supports, K, K, screwed in place, Fig. 5. Then followed the horizontal brace at the base in front, L, and last the shadow shelf hinged on the side, M.

Finishing. Our stand was then ready for the finishing touches, smoothing, staining, putting on the casters, and hanging the cloth screen.

We made our stain to match the interior finish of the room by mixing yellow ochre with a touch of Van Dyke brown and benzine. After looking at a dozen or more samples for the screen we decided on Monks cloth of a light brown color, its coarse texture making a most pleasing background.

This was tacked with brass tacks securely to the top of the stand at the back and allowed to hang straight and flat against it. Down either side small brass rings were sewed and, when hanging back of the frame, they were caught over hooks screwed into the uprights, thus making it easy to unhook the rings and drop the screen in front of the small panels, presenting in that case a large plain background for hanging work to be criticized or illustrations of various kinds, Plate III.

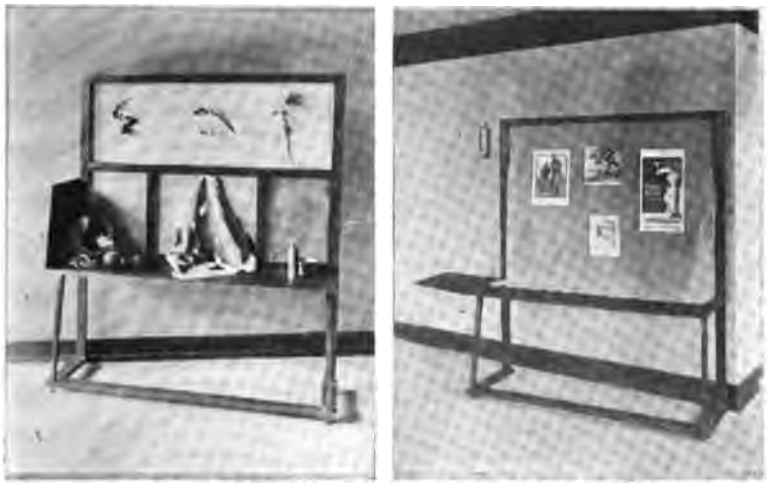


Plate III. The model stand in actual use.

Expense. The total cost of the stand was as follows:—

Poplar	$1.69
1-2″ dowels	.10
Monks cloth	.88
Casters	.20
Brass tacks	.05
Brass rings	.05
1 3-4″ screws	.04
Total,	$3.01

Our stain was given us and we happened to have small screw-eyes which we sprung open and used for hooks.

The stand is raised enough from the floor by the casters to allow our toes to slide under the base without "stubbing,"

and the supports under the shelf were slanted in to allow for our knees when moving about it. It does all that we ask of it, and if the benefit, pleasure, and satisfaction derived in the making of it count for anything, its value cannot be measured in dollars and cents.

ROYAL B. FARNUM
Cleveland School of Art
Cleveland, Ohio

THE AGASSIZ SCHOOL EXPERIMENT

THE question now asked by thousands of conscientious superintendents, principals, and teachers is this: "What should be our attitude toward the present insistent demand for industrial training?"

Circumstances will govern our answers to this question, and eventually many modifications will be made at different points in our present school systems, but that it is a problem to which the schools should give immediate and sympathetic attention there can be no reasonable doubt. The schools should do this work because the continued confidence of the public depends upon it, they should do it because they will receive better support from organized labor, they should do it because all education is one and the trained educator knows more about educating children than does the manufacturer, they should do it because they can do it better than any other organization.

Two facts of common concern are evident—

First: Elementary industrial training of a general character must be provided if the rank and file of industrial workers are to receive any benefit whatever.

Second: Any adequate scheme of industrial training must take full account of the industrial value of our so-called "academic" or "cultural" education and of the educational value of industry.

It therefore seems desirable to so modify our elementary school curriculum that it will lead some of the pupils naturally into vocational schools or classes without, however, hazarding the chances of any for entrance to the high school.

The Boston School Committee decided, two years ago, to make an experiment with modifications of this nature, and selected the Agassiz School in which to try it. The experiment has attracted some attention and many teachers have sought information regarding the purpose of the classes, their organization, and the methods employed.

The aim of this article is to supply this information, as far as possible, by describing the work of one of these classes in such detail that it may serve as a starting point for similar experimentation elsewhere.

The purpose of the classes is best set forth by the brief statement of a few guiding principles.

Industrial education is, at bottom, one with general education. It is a matter of emphasis.

Any training is industrial training if it develops industrial efficiency and creates industrial interest.

The time to begin to create this industrial interest is at least two years before the majority of industrial workers leave school, or about twelve years of age.

The best way to create this interest and to develop efficiency is to have the pupils engage in productive labor. This can be done in the schools if they manufacture, in some quantity, a product which can be applied by the school department to its own uses. There is little doubt that much work in manufacturing school supplies and equipment can be done by the school children in a manner that is perfectly satisfactory as regards the finished product, and highly beneficial as regards the training of the children themselves.

It is the business of the schools to supply the demonstrated educational demands of life. There is practical agreement among manufacturers as to the characteristics which they desire in their youthful employes. They do not expect their boys to possess a high degree of skill, but they do want boys who are "handy" and adaptable. They want boys who have some appreciation of the value of time and know something of modern industrial methods, and who are capable of taking an interest in the successful prosecution of their work. They want boys

who can apply their knowledge of English and mathematics to the work in hand.

It is the purpose of the Agassiz School experiment to demonstrate the essential soundness of the above stated principles.

Organization. In response to a general invitation, the parents of fifty boys about to enter Grade VI, requested that their sons be admitted to the special "industrial class" to be opened at the beginning of the school year.

As a result a class was organized, in which five hours a week were devoted to manual work. In all other respects, the regular sixth grade course of the school was carried out. The "industrial" work was conducted in a manual training room by a special teacher, who received the boys in two sections of twenty-five each. Each section worked during a two-hour period on alternate school days, thus averaging five hours a week. It should be observed that by this arrangement the regular teacher had a small class for ten hours a week. This advantage more than compensated for the extra time given to manual work.

It was understood that the things made should be used by the city and preferably should be such as could be manufactured in considerable quantities.

Methods. The methods of work can be explained most clearly by giving a detailed description of the making of the first model.

Several hundred pasteboard boxes, 2 3-4″ x 2 3-4″ x 4″, are used by the School Department every year, and it was decided to make a supply of these boxes.

The boys had done the work in cardboard construction the previous year, and so understood how to make a box of such simple construction. Dimensioned sketches were worked out in class and each boy made one complete box.

An account was kept of the total amount of time consumed in producing the twenty-five boxes made by the class. Some computations, based on the commercial value of the boxes, were made which showed that this method of production would hardly pay the worker one cent a day.

Again, of the first twenty-five boxes, some were good and some were bad, and there was considerable variation in measurements. The cover of one box would not always fit another.

It was pointed out that all must be up to a standard to be commercially acceptable, and all must be essentially uniform and adequate for the use for which they were designed.

Furthermore, some boys had spoiled two or three pieces of cardboard in making a single box. The lesson was drawn that any manufacturer wasting one-half of his material would be obliged to go out of business.

In the light of the foregoing, it was decided that more effective methods should be devised. An analysis of the processes was made and it was found that the making of the box could be divided into seven different operations.

The boys were arranged in groups and each group performed one of these seven operations. There were the box cutters, cover cutters, stayers, pasters, fitters, gluers, and inspectors. Jigs or mechanical devices were made which secured greater accuracy and uniformity in the product.

A system of inspection and checking was introduced, which at once detected or prevented errors.

As a result, a lot of seven hundred boxes was made with an expenditure of time which showed an increase in efficiency of about four hundred per cent. The percentage of waste was less than one-half of one per cent., and each boy had contributed to the success of the undertaking, some more, and some less, according to ability, but all were represented.

When the team called to transfer the seven hundred boxes to the School Committee supply rooms, each boy had a sense of achievement which was indicative of subsequent effort on his part.

Practically all of the distinctive features of the entire year's work are illustrated by this single project. As the work progressed the pupils were led to originate plans, devise jigs, and put themselves into their work in other ways. They were given responsibility for their own work, and sometimes for the work of others, and finally learned one of the most important lessons of modern industry, that the success of all depends upon the success of each.

FRANK M. LEAVITT

Acting Director of Drawing and Manual Training
Boston, Massachusetts

THE UNBACKED BOOK

IN introducing an established Craft, such as bookbinding, into the classroom, the plain duty of the teacher is to present the Craft, or so much of it as may be found practical, in a thoroughly technical way.

The whole process of bookbinding calls for an equipment beyond the resources of an ordinary classroom, and while the gluing up, rounding, and backing, could not well be carried on outside the shop, the folding, cutting, and sewing of the book offer a large field for good training. Entirely omitting the process of backing, the sewn book may be put into boards in an accepted bindery method, the necessary omission being carefully explained to the pupil, that he may understand the relation of his work to the complete process. In taking these three steps—folding, sewing the book, and attaching the boards, according to established rules, a very satisfactory result may be obtained.

The book described in this article measures 5 1-2 by 7 1-2 inches, is a little over 1-2 an inch thick, and is sewn on dark blue leather bands, with heavy orange silk twist. The boards are 1-8 of an inch in thickness, covered with an attractive covering paper, and the pages are of heavy tinted paper. The bands upon which it is sewn, extending over the boards for an inch before being inserted and pasted against the inside, while ornamenting the back, leave it fully exposed.

It is impossible, in this brief description of a process, requiring a series of articles, to give minute directions for each step; much must be omitted. "Bookbinding" by Douglas Cockerel, will be of assistance to the teacher.*

Materials for the book are as follows:

Ten sheets heavy paper 8 x 12 3-4 inches. (Fold and cut large sheets to these dimensions with bone folder.)

*See paragraphs, Marking up, 98; Sewing, 103; Kettle stitch, 105; Catching up stitches at back, 111; Boards, 131; Slips attached, 181-183.

Two sheets of lighter decorated paper 8 x 13 1-4 inches. (To line boards, called "paste-down paper)".
Two pieces tar board No. 5. 6 1-2 x 8 1-4 inches. (These should not be cut until book is sewn, and must extend 1-4 inch beyond pages on three sides.)
Four strips of strong leather 5 inches long by 1-2 inch wide. (Cut evenly, and tint to match color scheme.)
One spool strong twist.
Two pieces covering paper or book linen, 1-2 inch larger on all sides than the boards.
One needle (large enough to carry silk easily).
Smooth flour paste, large brush.

Collect the ten prepared sheets of paper and "knock up head" by holding the paper lightly at edges and tapping the head of sheets upon the working board (which must be level) until all are even. Lay carefully at upper left-hand corner of board. Take each sheet and fold evenly down center, creasing thoroughly with bone folder. (This creasing must be well done as it must substitute for press.)

End Papers. The end papers form an important part of the book. These include three sheets for fly-leaf, title-page, and the "paste-down paper" which lines the board. The end papers serve to fill in the unavoidable gap that occurs in all books between the boards and the first section, which would of course be more apparent in the unglued book were it not for the zig-zag fold in the paper described below. The decoration of these papers and the designing of the title-page make an interesting subject for the drawing class. Stenciled end papers are especially attractive.

To make an end paper which will allow for the "drag of the board" when the cover is open, take the unfolded sheet of paper, measuring 13 1-4 inches, 1-2 inch larger than the other folded sheets; fold and lay it with edges toward the left and point off with dividers 1-4 inch from back of fold at top and bottom.

Now fold the top sheet back toward the right, creasing at these marks; fold the under sheet the reverse way, and crease carefully with folder, leaving a V-shaped opening at the back. Place a double sheet inside of this, below the V-shaped fold. The upper sheet may be decorated, and pasted back against the board. Make two sets of end papers, for front and back of book. Place in press.

Figure 1. The sewing frame and the tools of the bookbinder.

Sewing. When all the pages are folded, collect into sections for sewing, slipping one double sheet inside another, making an eight-page section of four single sheets. (If thin paper is used, four double sheets should form a section instead of two, making sixteen pages.) Now "knock up" each section at head and back until perfectly even. If unevenness does occur it must be at the lower edge of the sheets. When all have been collated, place under

press, with thin sheets of tin (obtainable in any hardware store) covered with paper between every third section.

The important points in this process are: the tightly stretched upright bands; the sections (accurately marked for sewing) laid horizontally to the bands; the sewing thread pulled tightly and horizontally at the end of each section; the closely

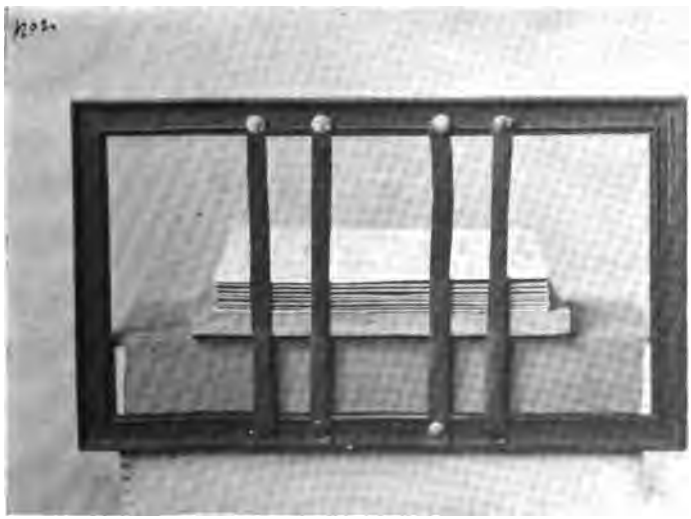
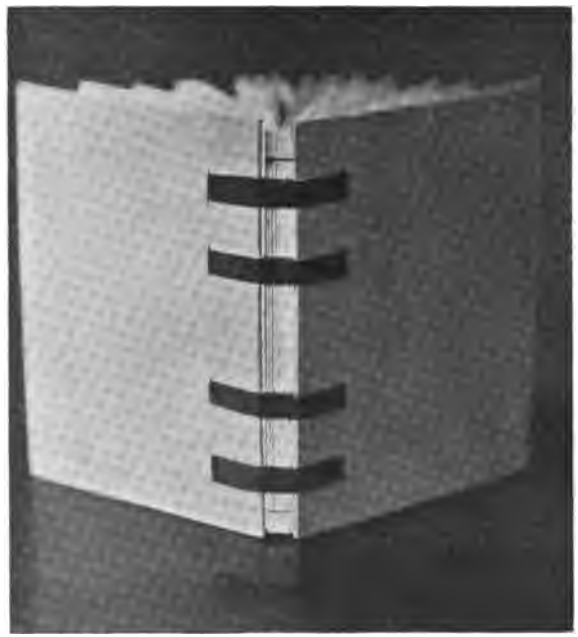


Figure 2. The rough substitute for the sewing frame. A picture frame nailed on a box.

drawn "Kettle Stitch" (holding the head and tail of book to the same thickness as the portions sewn on the bands).

This of course cannot be accomplished without the aid of the sewing frame. The regular frame, indispensable in every hand bindery, is here shown, Fig. 1; also the rough substitute for the sewing frame, made by nailing a picture frame on a box, Fig. 2. An adequate frame between these two extremes can,

however, easily be made by any boy or girl, by taking an inch thick board, large enough to hold the book, and three strips of wood, two nailed upright at the ends of the board and one horizontally across the uprights. The leather bands upon which



The unbacked book. Carefully selected materials and colors and careful workmanship make this a most attractive binding.

this book is to be sewn are stretched from the board to the horizontal bar, and fastened with thumb tacks, and the idea of the fixed vertical band, against which the book sections are to be firmly sewn, will be clearly demonstrated.

The "marking up" for sewing is of great importance, the greatest accuracy being necessary, as, if carelessly marked, the book will be ruined beyond repair in the sewing.

Take the book from the press, "knock up" and lay carefully, with back at the edge of the marking board, place tri-square against the back of the book, pointing down and bring back of section closely up to the blade. Now mark with sharp pencil as follows: For first leather band one inch from head of book; for second band, two and one-half inches; for third band, five inches; for fourth band, six and one-half inches.

Repeat lines across back, one-half inch below these marks, from top to bottom of back. This gives the spaces in which the leather bands will lie, and points at which the needle must pass in and out. Now mark for "Kettle Stitch" by drawing a line across the back 3-8 of an inch from each end. Saw in "Kettle Stitch" mark with fine file or hand-saw, or make deep groove into which the stitch may be drawn. Be sure all measurements are accurate and lines running straight across the back. Lay upon sewing frame, and adjust the bands with thumb tacks corresponding with marks on the back of the book. Now take up the book and adding the end papers "knock up" at head and back, and lay behind sewing frame with fore-edge toward the sewer, and first end-paper uppermost.

Take the end paper in the left hand, and lay it with the fold against the bands. This brings the front sheet of the end paper down, and the sheet through which the first sewing is to pass, up. Slip the left hand in the fold, where the sewing is to be, and with the right hand pass a threaded needle through the "Kettle Stitch" (marked, but not sawn in the end paper), grasp the needle with the left hand and pass it out through the back at the right side of the first upright band exactly through the pencil mark. Pull tight, leaving the end of the thread two inches

out at the "Kettle Stitch." The left hand must always remain in section, ready to receive and return the needle. Now insert the needle close against the left side of the band, receive in the left hand, carry down to the next band, push out at the right of it, and return into section at the left, receiving in the left hand, and so continue through the entire section, coming out at the lower "Kettle Stitch"; draw thread horizontally and tightly. Add the second section, pass the needle into the lower "Kettle Stitch" and sew in and out as before, sewing through two or four sheets at a time, according to the size of the section. When the "Kettle Stitch" at the head is reached, pull the thread tightly and tie the loose end, drawing it into section. Add the third section, and sew to the lower "Kettle Stitch," and bringing needle out, pass it between the first and second sections with blanket stitch loop; pull tightly into the groove made by file or saw. This loop makes the "Kettle Stitch" and is repeated at the head and tail of each section, always catching up the "Kettle Stitch" of the preceding section, thus forming a continuous chain through the saw cut, which keeps the ends of the book from spreading.

To tighten stitches, and ornament bands at back, at every fourth row upon coming out at the right of the band, slip needle down under the three preceding stitches, and draw tight with loop (see cut) before passing into the section at left of the band. Make double button hole at the last "Kettle Stitch" and draw into the book. This will leave end papers at front and back of book with V-shaped fold unsewn and ready to attach to the boards.

Covers. Cover the boards neatly with linen or covering paper, lay upon sewn book, and measure for insertion of "slips" or ends of bands upon which the book is sewn. With sharp knife cut four slits in the boards, the exact width of bands, one inch

from back, insert slips, pared thin, and, pulling tightly, fit covers with great care, and attach slips on inside of boards with paste. A little paste may be put on the underside of the bands on the outside of the book before they are pulled through the slits in the board. Insert the covered tins and put in press. When all is dry, the decorated end paper is pasted smoothly against the board. Before pressing, a sheet of blotting paper is placed between each board and the book.

EVELYN M. GRISWOLD

Brooklyn Institute of Arts and Sciences
New York

ANNOTATED OUTLINES

DECEMBER

CONSTRUCTIVE Design and structural drawing continue to occupy our attention this month. The objects made by the children should be of interest to them, related to the season, and of such character in each grade as the powers of the children may determine. A bright class, brilliant pupils in the class, should be given work commensurate to ability, though it be work outlined for the next grade above. Let the spirit of the season pervade all we do. Let us make gifts; make them as well as we can; make them as beautiful as our limited resources will allow.

PRIMARY

Aim: To lead the children to become familiar with geometric elements and terms, to attain skill in the use of pencil, ruler, scissors and knife, and to produce more attractive primary school work.

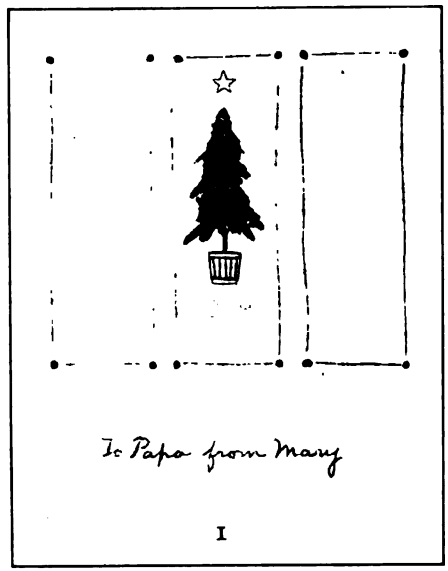
FIRST YEAR. Make Christmas greetings, using paper and colored pencils.

These must be extremely simple, such, for example, as the following: Figure 1: Take a sheet of paper 6 x 9 and fold it to make halves and then quarters. Cut off one quarter. With a red pencil make holly berries in the corners of each page. With a green pencil draw the margin lines. Cut from paper, or draw with the green pencil, the Christmas tree, standing in its red tub. Print the year below. If the work is well done the teacher will add a gold star above as a reward of merit. On the remaining slip write the greeting card to be folded inside the covers.

SECOND YEAR. (U) Make Christmas toys, using paper and colored pencils or water color.

A shop window, Fig. 2, is a good subject for all to work out together. The toys in this window were made by little folk in Dover, Mass., but the window

was made and arranged to illustrate this outline. Let each pupil draw any toy he likes, color it, and cut it out. Let each make several toys, or make an entire window. Paste strips of manila paper on a sheet of black cardboard, and on these, as shelves, arrange the toys. The window frame is made of white paper, and added last, over all. Christmas decorations suggested by the children, add to the festive appearance of the shop window.

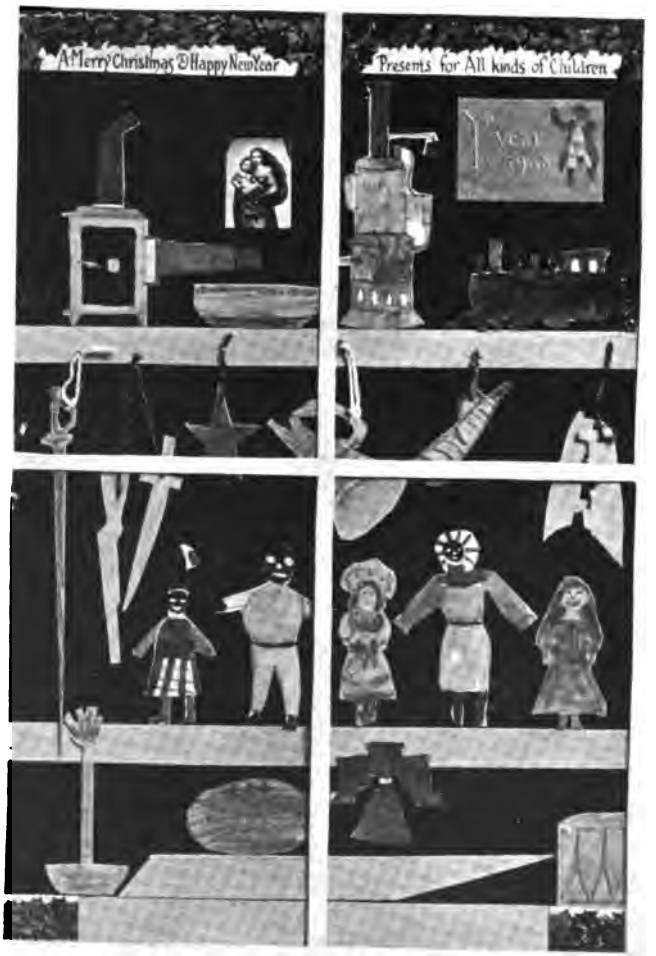


THIRD YEAR. Make a Christmas Booklet, using any available and appropriate material.

The silhouettes given herewith (Fig. 4) are from a portfolio of plates illustrating the Annual Visit of St. Nicholas by Professor Moore. They were suggested by the lines, "When all through the house," "Not even a mouse," "The stockings were hung by the chimney with care," "The moon on the crest of the newfallen snow." The silhouettes were cut from dark gray paper, and the "scraps" were pasted on sheets of white paper to produce the effect of a white silhouette within a white frame. Of course the line illustrated might have been written below the silhouette, but the children preferred to let people guess, "for everybody ought to know that poem well enough to know how it looks without being told." The portfolio in this case was very simple, somewhat like that given by Miss Derby in the last May number.

GRAMMAR

Aim: To develop intelligence, taste and skill in handicraft, the sort of handicraft appropriate to school life.


A Merry Christmas & Happy New Year
Presents for All kinds of Children

II

Schools differ so greatly in the variety and amount of material available for handicraft that the outlining of work in tooled leather, metal, embroidery, etc., would make this schedule impossible to the majority. Problems involving such materials are given in The Workshop. Here the materials required are for the most part only paper and wood, such as wideawake children can always procure.

FOURTH YEAR. (U) 1. Make a Christmas greeting, and an envelope in which to keep it, using symbolic elements.

These greetings may be in the form of cards, booklets, pictures, or other objects, such as have been outlined here in previous years.* A new form of decorative paper cutting is shown in the initial beginning this Outline, and in Figure 5.

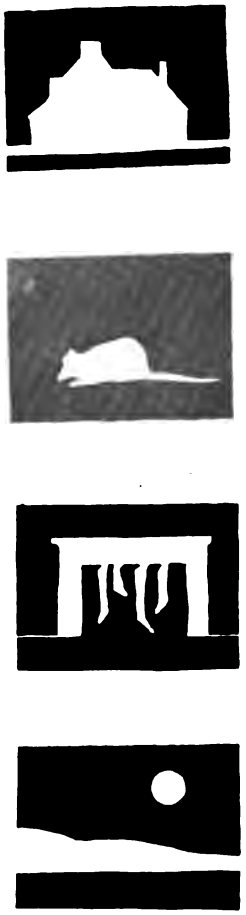
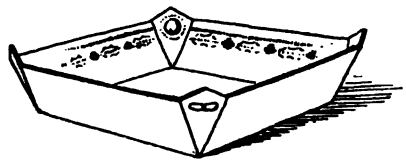


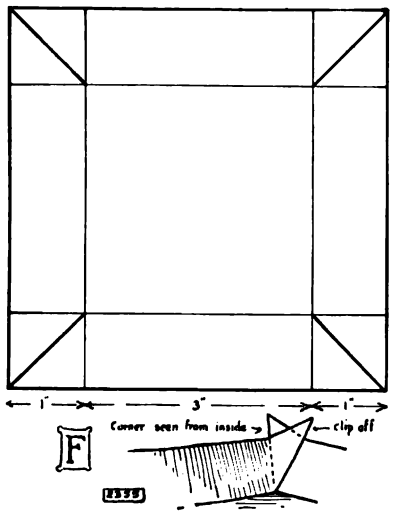
Figure 4

*See back numbers Book, November, December; also Christmas Packet, Davis Press.

The papers used are carefully selected for their hues and values that the result may be pleasing. Good subjects for work of this kind are the following: The star above a symbol of the Little Town; a Christmas tree; a conventional spray of holly or mistletoe; monograms, and other appropriate reminders of the great festival, and of Him who makes it great.

2. Make a candy tray of paper, cardboard, or sheet metal.





The simplest possible form is shown at F. If paper or card is used the corners may be pasted, or clipped and held together by means of a brass fastener as shown in the perspective sketch. Decorations may be added on the sides, as suggested. If tin or sheet brass is used the folding of the corners alone, if carefully done, will be sufficient to hold the tray together. They may be trimmed and riveted.

FIFTH YEAR. 1. Make a Christmas booklet, with a decorated cover.

Suggestive illustrations are given in the plate on page 249. These are as follows, in order: A Christmas Greeting, Charles Smart, III, Braintree, Mass. The Christmas Story, Librado Net, IV, Ponce, P. R. Copy of a Christmas Carol by James R. Lowell, Maud Cresswell, VIII, E. Braintree, Mass. An Alphabet of Quotations of New Year Maxims,

CHRISTMAS 1908
CHRISTMAS
A
MERRY
CHRISTMAS
1908

William Geary, VI, Westerly, R. I., and another by Malia Bernasioni, VI, Westerly, R. I. Whatever is attempted let it be something in which the children are especially interested, and let it be done well—good spacing, good drawing, good coloring, under the thought expressed in the motto of The School Arts Guild.

2. (U) Make a toy as a Christmas gift for somebody.

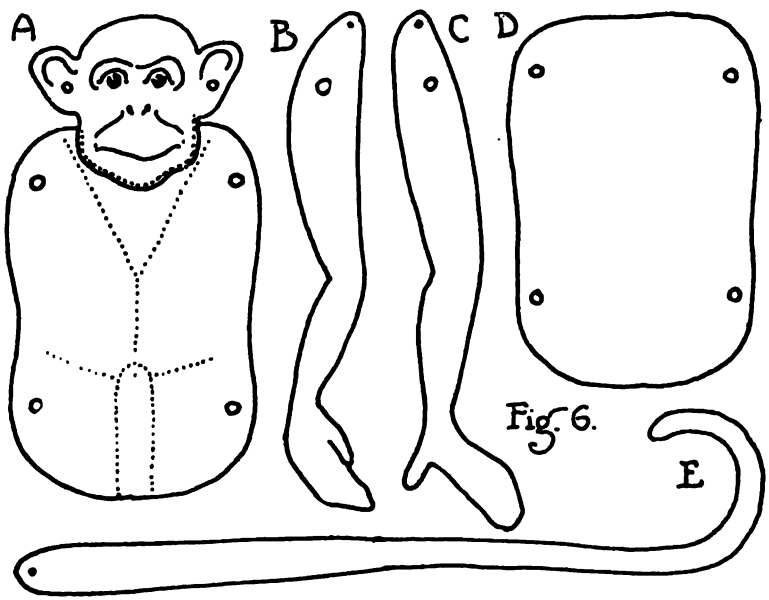


Fig. 6.

The toy may be anything within the powers of the class, or of the individual pupil (for all need not make the same). The toy selected for this outline is a jumping-jack,—a monkey. It may be made of stiff cardboard or of thin wood. The essential parts are shown at Figure 6. Cut duplicates of B and C. The dotted lines in A, suggest the stringing-up of the parts, when all are in normal position. The full and dotted lines side by side indicate drawing rather

than cutting. The jumping-jack photographed for Figure 7, was made of cardboard and put together with brass fasteners.

SIXTH YEAR. 1. Make a Christmas cornucopia with appropriate decoration in color.

A novel and pretty form is shown in Figure 8. It is made from a sheet of paper 9 x 12. Fold on a; fold over the folded edge, f, so that it "aims for the corner" as shown in the diagram, c; fold this part over again, on the line f, as shown in diagram d; cut off the corners of the sheet, d, g. Open the flat. On the creases radiating from e, mark off points 1, 2, 3, 4, 5, seven inches from e. Connect these points by straight lines as shown by the dotted lines. Draw the semi-circles, or other curves in place of them, to make the ornamental fringe around the top. Cut out the flat on the heavy lines.* Paste o and o together; fold over h and h and paste them securely. The ornament painted on in watercolor, as indicated in the perspective sketch, is based on the mistletoe.

2. Make a toy as a Christmas gift for somebody.

The boys of this grade might be interested to make a toy pistol such as that described at Figure 9. The girls might try a bit of needlework, one of the articles described in "The Traveler's Outfit" by "Sister May," in The School

*The little triangular pieces forming the corners below h and h, would better be left on until the cornucopia is pasted.

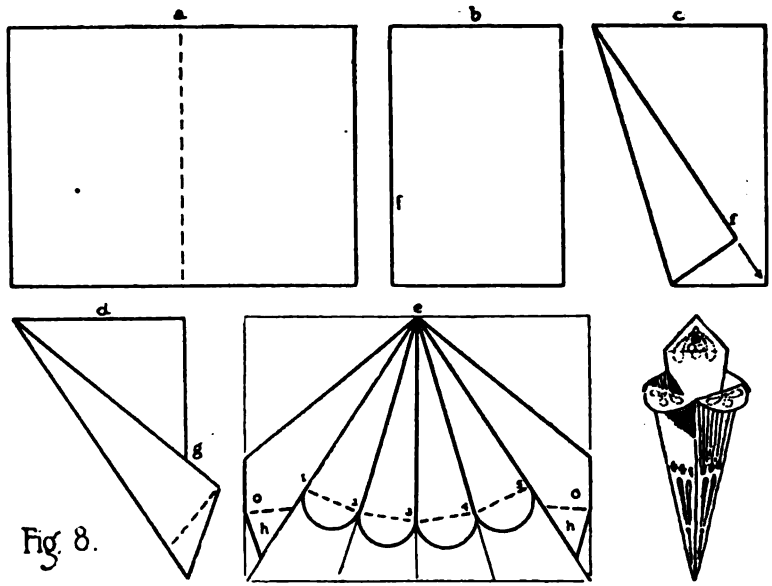


Fig. 8.

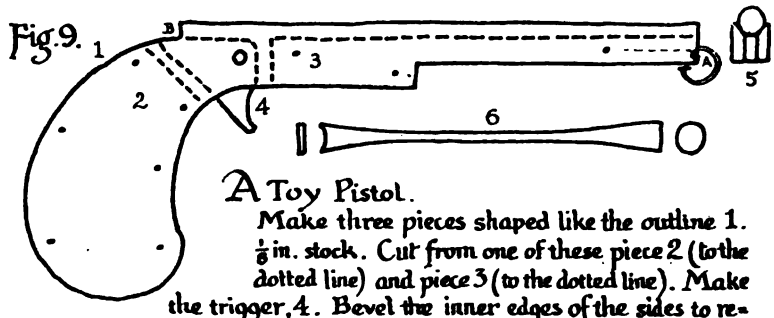


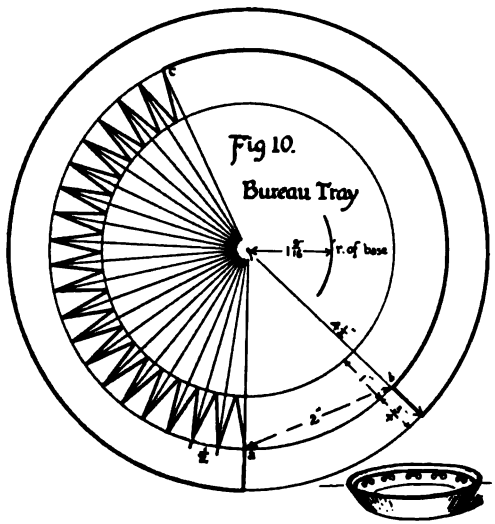
Fig. 9.

A Toy Pistol.

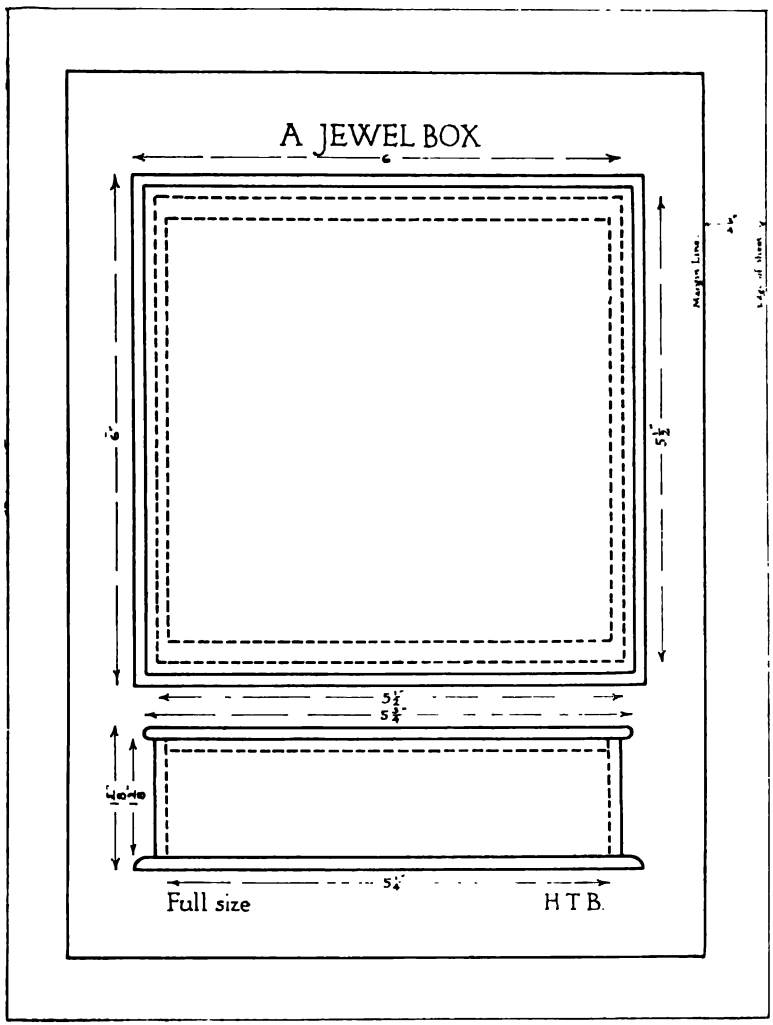
Make three pieces shaped like the outline 1. $\frac{1}{8}$ in. stock. Cut from one of these piece 2 (to the dotted line) and piece 3 (to the dotted line). Make the trigger, 4. Bevel the inner edges of the sides to receive the bolt, 6, as shown at 5. Insert a bent pin, A, to receive the rubber band. Adjust from A to B. Fire! (Dots indicate tacks).

Arts Book last year. Possibly it may be quite enough in this and the following grades, for the girls to work out the problems numbered 1, and for the boys to work out the problems numbered 2. But some girls like to do boy problems! And bright pupils can work out both.

SEVENTH YEAR. (U) 1. Make a bureau tray of stout paper, with appropriate decoration in color.



The flat of a serviceable tray of pleasing shape is given in Figure 10. It may be made of good drawing paper, or of thin oak tag. Draw the outside circle, 9 inches in diameter; draw the circle for the base of the side (3-4 inch high), and for the points of the laps. On the second circle, beginning at a point a, set off twenty 1-2 inch spaces to locate the laps. From a, measure two inches across to b. Cut on the heavy lines. Bend the laps as nearly as possible on the light circle. Bend the flat until the point a comes to c. The rim will then pass around inside until the point b comes also to c, making the


A JEWEL BOX
6"
6"
5½"
5¼"
5¼"
1 5/16"
1 5/16"
5¼"
Full size
H T B.

sides of the tray double thick. Cut from paper two circles 3 1-8 inches in diameter. Paste one on inside, and one outside to form the bottom of the tray. Decorate the tray with a single band of color on the outside (or none at all), and with a simple border on the rim, inside.

2. **Make some object useful in the home, involving two views in the working drawing.**

A Jewel Box, such as that shown in the drawing, Fig. 11, and in perspective, Fig. 12, is suggested. This can be made from eighth-inch stock, except

the two ends, which for convenience in nailing and for strength, should be of quarter-inch stock. The cover and sides of the box may be ornamented as indicated in Figure 12. If this is too difficult for the grade, or requires more stock than is available, the pupils might try the wall pin shield, Fig. 13. This involves the making of a frame of thin wood; the making of a pad of wood covered with cloth; and of a back to hold the two together. The pad may be fastened into the frame by a back of cloth firmly glued into place. Two screws hold the pad firmly to the wall at the desired height. This problem offers opportunity for original design both in form and in color. The object should look well upon its wall.

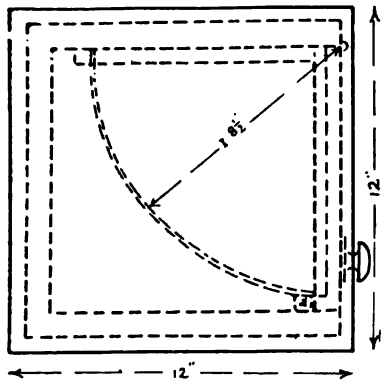
EIGHTH YEAR. 1. Make some object, suitable for a gift, involving both structural and decorative design.

A Triptych, Fig. 14, is suggested. This problem has a history. Triptychs have been made for many hundreds of years. Some are famous. Look them up. The frames may be simple or ornate. They offer opportunities for the

use of the coping saw, the wood-carving tool, color, pictorial art, pen-craft,—in fact a triptych is the open–door to all the crafts. It should be made of quarter-inch stock, and the doors or wings hung with little metal hinges; but that shown in the illustration is made from cardboard. The fine point in the design is to achieve something as beautiful and as complete in appearance when open as when closed. Compare Figures 14 and 15. Usually three pictures occupy the three rectangular spaces but a poem or other quotation may occupy the wings.

2. Make some object useful in the home, involving drawing to scale, and a sectional view.

A Blacking Stand is suggested. Here is a stand, Figs. 16 and 17, which is substantial, of the right height, which may be opened with one hand after the foot is in place, holds the blacking at a reachable level, and may be made by anybody who can get an old packing box, and who can use the simple wood-working tools. Two boys made the stand here photographed, from rough stock, in a single evening, less than three hours from start to finish. The stand photographed varies slightly from the working drawing, but not essentially. In making the swing drawer be sure to have the hinge the center from which to lay out the quadrant. You will have to nail the stop, a, in place before hanging the drawer. The hinge must go on last. The stand may be finished in the natural wood, stained, or painted. Naturally such an object requires no ornament except good proportions and good lines. The piece cut from the sides need not be severely triangular in shape. The hinge might be ornamental, slightly; and the knob might correspond.

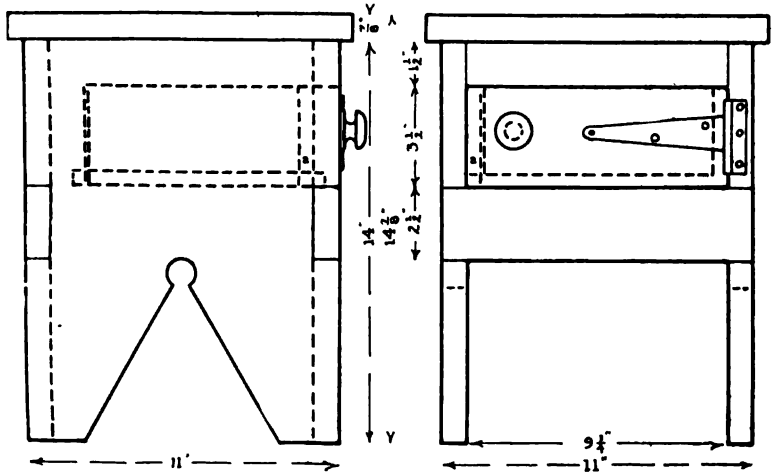


Blacking Stand

⅞" Stock except parts of drawer.

1 pc. 12" x 12"
2 pcs. 11" x 14"
1 pc. 7½" x 11"
1 pc. 1½" x 9¼"
1 pc. 3½" x 9¼"
1 pc. 2½" x 11"
1 pc. 9" x 9", 1 pc. 3" x 8½" (½")

1 T hinge (3")
1 pc. zinc or tin, 3½" x 14".
1 Knob.



The top, subject to soiling, should be left plain, that itmay be cleaned easily and thoroughly.

H. T. B.

HIGH SCHOOL

FREEHAND DIVISION

The program for December may advisedly be along two lines, the first a study of perspective principles applied to objects seen in landscape surroundings, the second an application of class co-operation or communal work to the Christmas decoration of the schoolroom or assembly hall.

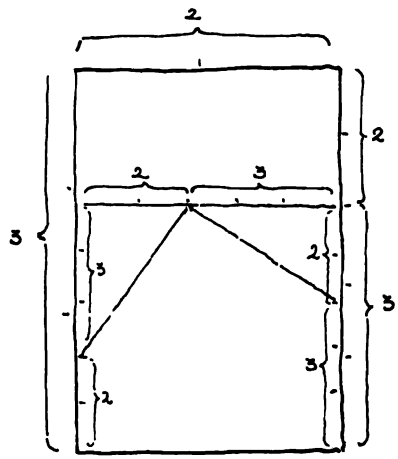
PERSPECTIVE PRINCIPLES. The pupils in the grammar grades are supposed to be thoroughly familiar with perspective principles. It would seem almost a waste of time to review them. Experience proves, however, that it is not time wasted and that a new view point and different applications of old principles excites interest and fastens knowledge.

Our consideration of landscape in last month's program will help us in starting this month's perspective work, for most important ideas of perspective

may be gained out of doors. Review the idea and principle of the horizon level as being always at the height of one's eye. Clinch the difference between the true sea level or flat plain horizon and a wooded or hilly sky-line. Try at the blackboard a dictation exercise, somewhat as follows, the class working it out individually. The subject shall be the familiar one of a retreating street or railroad track. The underlying principle of spacing in this lesson shall be the ratio of two parts to three. Any space whatever that needs subdivision shall be thus treated and not cut at random.

The size of the sheet itself is 2 : 3 parts. Divide AB into 5 parts; the margin shall be one part on each side, the picture 3 parts. This size margin may be carried around of uniform size, or the bottom may be increased one-third over the top margin.

Locate the horizon by dividing the area inside the frame into five parts, of which two parts are land, and three sky, or vice versa. If a very high or low horizon is desired, re-divide the upper or lower two-fifths, according to the same principle. Situate in the same way the front end of each side of the road.

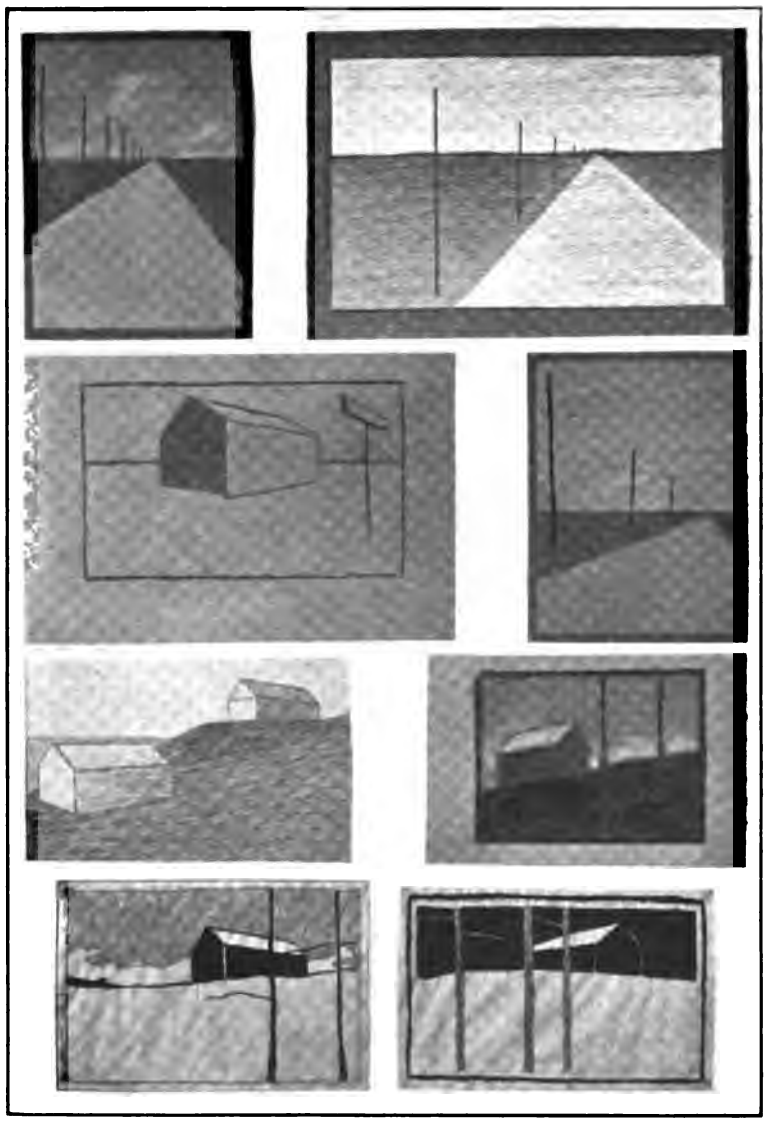


Possible method of plotting a landscape problem . . .

A consistent adherence to this method of spacing will allow of as many arrangements as there are pupils, and consistent variety in each drawing.

The telegraph poles (see plate page 262) are best located at the side showing the greater space, their bases and tops limited by guide lines converging at the vanishing point.

In spacing a row of retreating objects such as these poles, the customary method of random guesswork should, I think, be replaced by the following logical system which, by repeated experiment, I have found to give a satisfactory appearance. Equal distances, retreating in perspective, diminish at a constant ratio. If we can make our telegraph poles here follow the same principle our results will be convincing in appearance. For example, suppose



Examples of the application of perspective principles in landscape problems, by high school pupils.

the position of the second pole seems to be half way between the first pole and the vanishing point, then the third pole will be similarly half way from the second pole to the vanishing point. Each succeeding pole will also be one-half the distance from the previous pole to the vanishing point.

If a more ambitious person desires to work this out on the idea of a third, a quarter or an eighth of the distance from the last pole to the centre of vision each time, the result will be equally good but showing a closer setting of the poles.

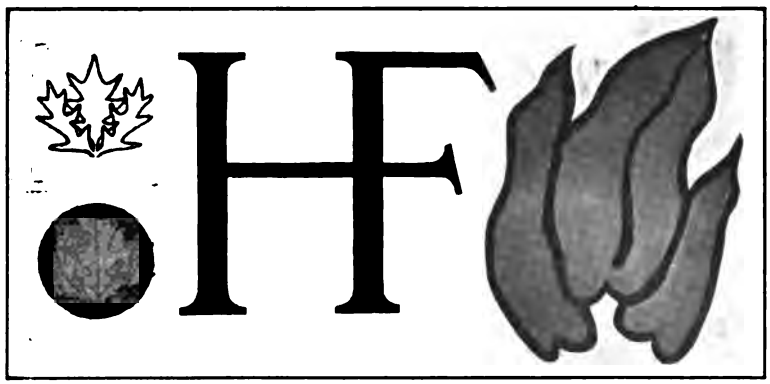
The finish of this sketch admits of a wide range of treatment in a number of materials. The application here of landscape elements studied in last month's outline will bring happy results. The horizon may be somewhat varied; the road may be enlivened by some irregularities of stones or shrubbery, and the able student can substitute for the bare poles a row of fall trees. The perspective elements, however, should not be swallowed up in landscape detail. A cloud or two does no harm and may also show the diminution of size of these forms as they approach the horizon.

The problem of the road may be followed by one involving two rectangular solids in angular perspective, one above and the other below the horizon. Their vanishing points should be some distance outside the frame, and their location inside the frame should be planned with an idea of good space composition in mind, the ratios of the previous drawing being here applicable.

The addition of triangular prisms above these solids changes them into houses, which become still more satisfactory in appearance when a hill is suggested with a distant horizon. The addition of trees or other simple accessories is helpful to the composition if based on the two-to-three principle.

COMMUNAL DECORATION. The holiday season invites many attempts at decoration with equal chances for original experiments individually or as a class. The latter method is less usual and worth trying.

Whether the choice of a room is the auditorium of the school or the smaller classroom, the idea of the decoration must at first be structural. The decorations should be concentrated at a few points and not scattered. Vertical or horizontal lines of doors and windows or other vital features should be the starting points. A general sketch of the wall spaces to be treated could be put on the board and original schemes for treatment sketched by the pupils. Either the teacher's own scheme or the best one of those done by the pupils should be then followed by the class or classes, each pupil doing over and over a definite part of the problem. The assembling and putting up of all these details when finally executed completes the work.



1. Group of holly leaves for class enlargement for repetition in the decoration of the room. 2. A design for a decoration based on the holly motif. 3. An example of a decorative monogram cut from paper and colored. In this particular case it was made for the Hudson-Fulton celebration. 4. A group of laurel leaves cut from paper and colored. Enlarged by a pupil from a blackboard sketch. Three hundred of these were made last year for the decoration of a high school room in New York City.

In doing decorating of this kind the size of work required is deceptive. It usually has to be much larger than one would suppose. A trial of some sketch forms in the actual space to be decorated will give one the necessary scale.

Christmas decorations involve no new devices or forms but may employ new methods. Each boy and girl, for example, may make several leaves like the holly or the laurel (see illustration herewith). In order to insure uniformity have them copied from the board by a system of squares. Color brilliantly with water color or crayon, outline with black, or gilt paint if procurable, and assemble these in long lines, bands, wreaths and festoons. The size of these leaves may vary from five to twelve inches in length. In assembling them a backing of cardboard or wooden strips may be used, together with necessary liquid glue and small tacks. Monograms, heraldic devices and emblematic forms appropriate to the time may be cut in large silhouettes by the abler pupils, colored in flat tones and mounted on shields or escutcheons, or surrounded by wreaths of the leaves just described.

An evening gathering may be made doubly attractive by rice paper shields or shades for the electric lights on which appropriate flat tone designs with broad black outlines have been drawn.

Former numbers of The School Arts Book furnish plenty of material for holiday motives, which when enlarged by squaring-up and produced in quantities by several classes will decorate a considerable area. The caution cannot be too strongly forced home, to mass one's decorations along the constructive features and not dissipate their force by small and scattered effects.

HAROLD HAVEN BROWN
Stuyvesant High School, New York City

MECHANICAL DIVISION

Copyright reserved by the Taylor-Holden Company.

The next consideration to be given to the cylindrical form should be the development of its surfaces, the calculations for

the area of these surfaces and its cubical contents. This brings some mathematics into the drawing course and emphasis may be given to the fact that mechanical drawing and mathematics are closely related.

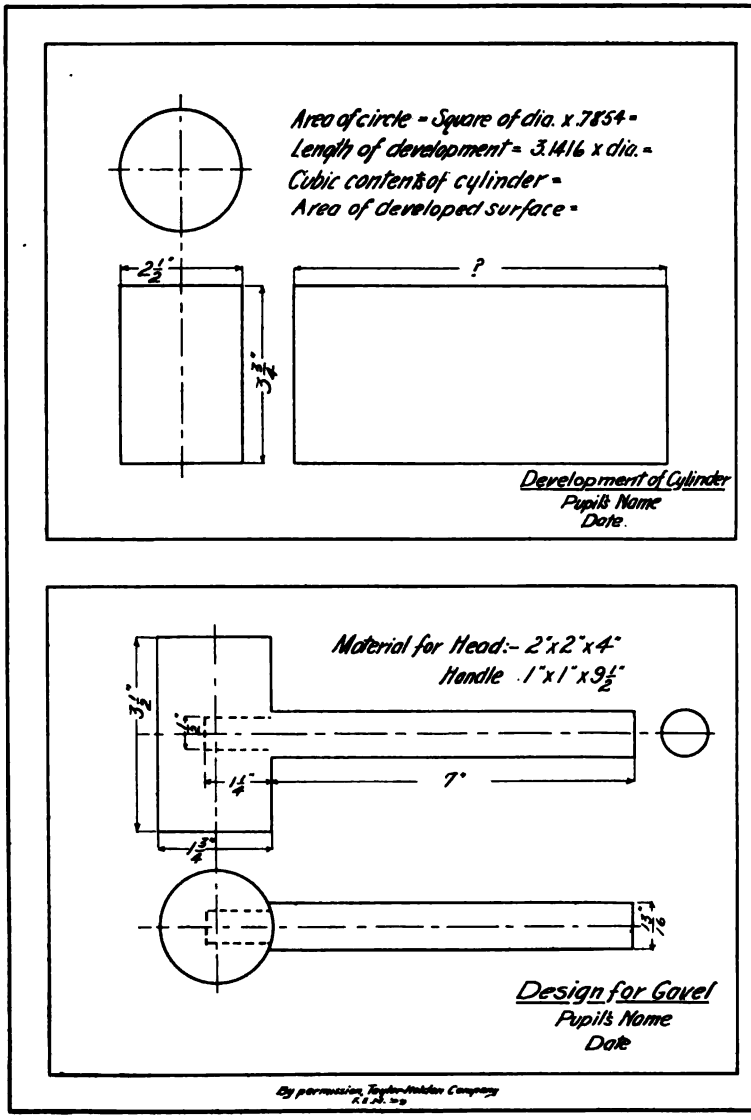

Area of circle = Square of dia. x .7854 =
Length of development = 3.1416 x dia. =
Cubic contents of cylinder =
Area of developed surface =
2½"
3½"
?
Development of Cylinder
Pupil's Name
Date.
Material for Head:- 2"x2"x4"
Handle .1"x1"x9½"
3½"
1¼"
7"
Design for Gavel
Pupil's Name
Date
By permission, Taylor-Holden Company

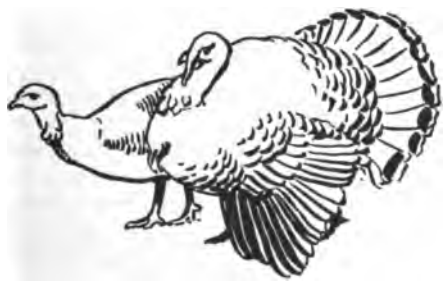
Plate IV. Working drawing of a cylinder and its development. Page 266. Results of calculations should be neatly lettered on the drawing plate.

Plate V. A design plate for a gavel or small mallett to be made in the shop. The drawing, page 266, gives the largest cylindrical forms to be made from the square material specified. The plate on page 265 illustrates results obtained from one division of a first-year class.

Plate VI. Make a working drawing of two views and a perspective sketch of a cylindrical ring, outside diameter 4 1-2 inches, inside diameter 2 1-2 inches. A section through the ring is one inch square. This is a type form for several good examples in design such as the picture frame and napkin ring, although the proportions of each are widely different.

FRANK E. MATHEWSON

Technical High School
Cleveland, Ohio



THE WORKSHOP

WOODWORKING

THIS month's plan was suggested by a mounted elephant head in the museum in New York and has been worked out successfully by some of our eighth grade boys. It is an excellent problem in accurate sawing and boring, with some slight work that may be done with chisel or file.

ELEPHANT TIE HOLDER

Some previous practice with back-saw, brace and bit, knife and chisel, is necessary to successfully construct this piece. It requires, of course, sawing true on a line. Although called a Tie Holder it may be used as a hanger for towels as well. Any wood may be used such as pine, poplar, bass, gum, or chestnut and oak, the last two allowing the best finish.

The material for the back piece or ears should be 1-2″ or 3-4″ thick and for the head and stick, 7-8″.

Saw out Figure 1 square to dimensions. If the cut is true no planing will be necessary. Next, rule in the construction lines very carefully on both sides of the wood. Before any wood is cut away bore the holes indicated in solid black, Fig. 1, Fig. 4. The larger hole, which is for the stick, is to be bored with a 3-4″ auger bit and must be very straight. Bore partly through from one side and finish from the other, both to avoid splitting and to insure accuracy.

During this process the wood should be held in the vise horizontally by its longer edges thus compressing the fibre and preventing splitting.

For the smaller holes a 3-16″ drill bit is large enough. The eye hole is bored only a little distance in from either side.

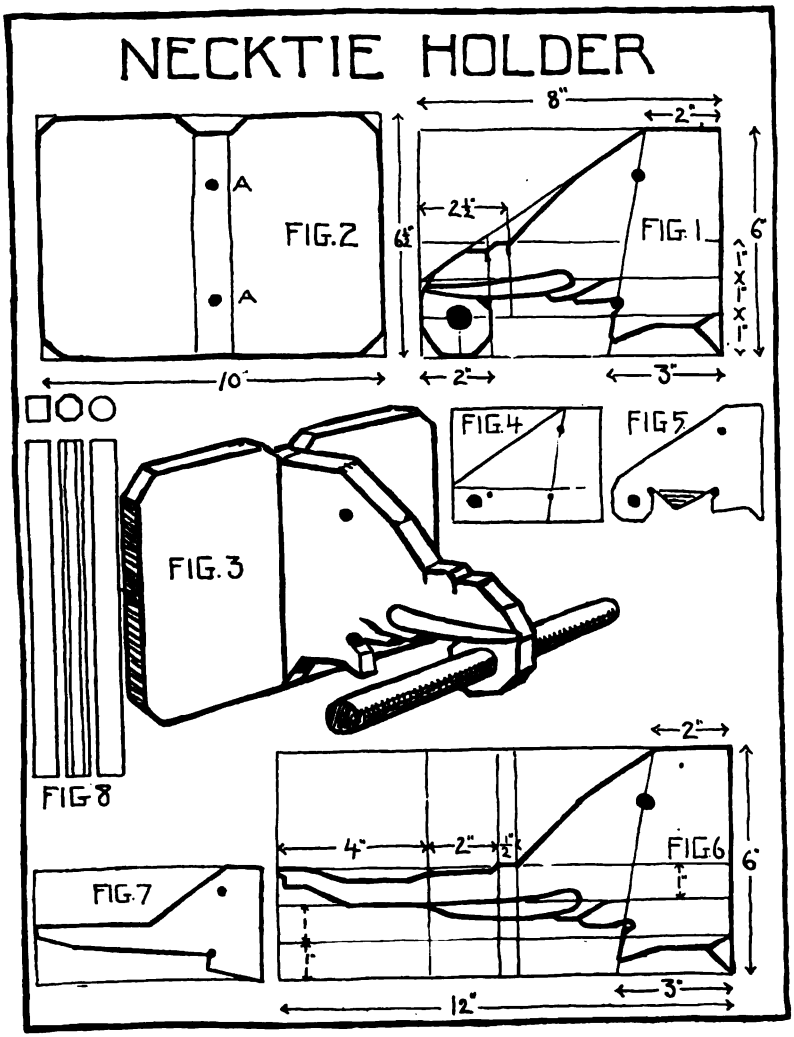
After these holes are bored successfully the wood may be cut away to the shape shown in Figure 5 with the back-saw. The chisel is used to cut away the wood indicated by short lines, and the finer cuts made with that tool. Tusk lines and wrinkles are carved either with the knife or a veining tool.

Sandpapering surfaces will reduce the extreme sharpness of edges.

Figure 2 is so simple in form as to need no special mention. The two pieces are fastened together by 1 3-4″ flat head screws at AA, Fig. 2. Hang the rack either by holes through the back piece or by screw eyes set in its upper edge.

In Figure 8 is shown the process of reducing a square stick to a cylinder. This can be done with the plane, knife or file and sandpaper.

It is easier if a 3-4″ dowel rod can be obtained. This bar may be 9″ or 10″ long. It must be worked down with file and sandpaper until it will drive


NECKTIE HOLDER
8"
2"
A
A
FIG.2
6½"
2½"
FIG.1
6"
1"
1"
1"
10"
2"
3"
FIG.4
FIG.5
FIG.3
FIG.8
2"
4"
2"
½"
FIG.6
6"
1"
FIG.7
1"
3"
12"

into the hole easily as any forcing is liable to split the trunk. A touch of glue will hold the two in place.

A variant of the head design is shown in Figures 6 and 7. This is easier to make but not as interesting in form. In this last design the ties are hung over the outstretched trunk.

Stain the whole brown or black and after this is dry, paint in tusks with varnish white.

FRANK G. SANFORD
Oneonta, New York

WEAVING

INDIAN BLANKET AND HEADDRESS

PROCESSES. Use of a continuous warp with short lengths of weft. A wooden needle for tool. Individual and co-operative work.

MATERIALS. Roving or jute yarn, strong cord or carpet warp, some nails and small pieces of board or a wooden box, chicken or turkey feathers.

ORAL LANGUAGE WORK. Talks on cotton and hemp, meaning and use of selvage. "In the Child's World," p. 421. Champlin's "Young Folks Cyclopedia," p. 370. "Textile Studies for the Schoolroom," p. 26. "The Hemp Industry in the United States," Department of Agriculture.

DIRECTIONS FOR MAKING

For the blanket loom use a board about the size of a shingle, 6″ x 18″. Place nails for the warp about one-half inch apart along the two long sides. This will insure an even selvage. Use strong cord, and warp from nail to nail, tying the beginning and the end of the warp cord to a nail. Allow 10″ of extra warp at each end for the finishing off. Cut the roving in strips for the weft lengths, measuring the full length of the loom plus the allowance for fringe (2″) at each end. Weaving needles are easily made by whittling to a point a strip of wood of the required length and making an incision to hold the thread. Weave over and under through the warp, placing the two strands for the selvages first. Weave towards the center until the warp is covered. In joining work when a new thread is needed, lap the weft about one inch, taking care to put the new piece under and over the same set of threads as the old. Finish off the blanket by button-holing the unfinished ends with the ten-inch piece of the warp cord that was kept for this purpose. Trim the fringe and remove the blanket from the loom.

Loom for Indian headpiece, 12″ x 12″. Indian headdress of colored jute and chicken feathers. Loom for an Indian Blanket, 5″ x 15.″ Indian Blanket.

For making the Indian headpiece almost any individual school loom can be used, also a strip of wood or of straw board. Place four continuous warp cords about one-half inch apart and of any desired length. Cut the jute yarn or roving into six-inch lengths. Weave through the warp, coming back to the starting point, thus forming a selvage on one side and a fringe on the other. Continue to weave until the head band, about two inches wide, is completed. Remove from the loom, sew the ends together to form a circle and insert the quills of the feathers into the woven band. By weaving a longer piece and allowing one end to hang down the back a more elaborate headdress can be made.

KATHARINE FRENCH STEIGER
Director of Domestic Art
Rochester, New York

NEEDLEWORK

ENGLISH PEASANT COSTUME

CHRISTMAS EVE IN THE OLDEN TIME

On Christmas Eve the bells were rung;
On Christmas Eve the mass was sung;
That only night in all the year,
Saw the stoled priest the chalice rear.
The damsel donn'd her kirtle sheen;
The hall was dress'd with holly green;
Forth to the wood did merry-men go,
To gather in the mistletoe.
Then open'd wide the Baron's hall
To vassal, tenant, serf, and all;
Power laid his rod of rule aside,
And Ceremony doffed his pride.
The heir, with roses in his shoes,
That night might village partner choose.
The fire, with well-dried logs supplied,
Went roaring up the chimney wide;
The huge hall table's oaken face,
Scrubb'd till it shone, the day to grace,
Bore then upon its massive board
No mark to part the squire and lord.

Then came the merry masquers in,
And carols roar'd with blithesome din.
If unmelodious was the song,

It was a hearty note, and strong.
Who lists may in their murmuring see
Traces of ancient mystery.
White shirts supplied the masquerade,
And smutted cheeks the visors made;
But oh! what masquers richly dight,
Can boast of bosoms half so light!
England was merry England when
Old Christmas brought his sports again.

Sir Walter Scott.

Christmas! What a start the word gives us, yet if we are to have any Christmas plays or dances, it is quite time we were making our plans.

The selection from Sir Walter Scott's "Christmas Eve in the Olden Time," gives us a slight idea of what the Christmas celebration meant in "Merry England." Many of our own present day customs of the Christmas season, notably that of decorating our homes with evergreen and mistletoe, have come down to us from our English ancestors.

England was not alone in its observances of Christmas, for the season has been taken note of in all countries from very early times. The date was fixed at a time of year when the ancients were accustomed to hold many of their festivals, particularly that in honor of the Sun. The Saxon nations and other northern countries kept a festival at this time of year in honor of the god Thor. This festival was called "Yule" or "Jule," and was marked by both religious and secular observances. The Romans, Greeks, Mexicans, Persians, and Chinese all had similar festivals, and in all countries it seems to have been a time of equality, with no class distinctions, and presents were given and received, much as we give Christmas presents now; moreover there still remains the same strange mingling of the divine and the secular.

An interesting account of a Christmas in 1348, kept by King Edward III of England at Guildford, is as follows:

"Orders were given to manufacture for the Christmas sports, eighty tunics of buckram of different colours, and a large number of masks, some with faces of women, some with beards, some like angel heads of silver. There were to be mantles embroidered with heads of dragons, tunics wrought with heads and wings of peacocks, and embroidered in many other fantastic ways. The celebration of Christmas lasted from All Hallow's Eve, the 31st of October, till the 3rd of February. At the court a lord of misrule was appointed, who reigned during the whole of this period, and was called 'the master of merry disports.' He ruled over and organized all the games and sports and during the period of his rule there was nothing but a succession of masques, disguisings,

and dances of all kinds. All the nobles, even the Mayor of London, had an officer of this kind chosen in their households. Dancing was a very favourite amusement. It was practised by the nobility of both sexes. The damsels of London spent their evenings in dancing before their masters' doors, and the country lasses danced upon the village green." Such was a Christmas celebration more than five centuries ago!

It is more than likely that the Christmas plays and pantomines so much in vogue at the present time, date from the reign of Henry VI of England, when a Christmas play was produced at Middletown Tower, Norfolk. It was enacted on Christmas Day, 1445, and the costumes and scenery, which were quite elaborate for those times, were made expressly for the occasion.

At the Court of Queen Elizabeth, William Shakespeare was one of the Christmas players, and the Queen took great delight in his plays.

Very early in the reign of James I, Shakespeare's plays, which had formed such a part of Court entertainments, gave way to performances called "masques," which however, were of a much higher character than the masques of earlier times, and the nobility were frequently among the performers. These masques formed the principal part of the Christmas entertainments at the Court of James I.

At the time of Queen Anne, we see something of pantomines in the puppet shows, and other scenic exhibitions with moving figures, which were among the Christmas amusements.

And so on, through all the centuries, we still find the festival idea dominating the season.

Why not bring this Spirit of Play into our school work, and let Christmas plays and dances be worked out in connection with history, literature, and physical training!

It seems fitting that the costume for this season should be an English one, and the writer has selected that of an English peasant in the early part of Queen Victoria's reign.

The material used in the picture is a figured chintz for the dress, which has a surpliced waist. A white apron and white mob cap, of white lawn, complete the costume.

DIRECTIONS FOR PATTERN

Figure 1. Front of waist. Take paper 8″ long, and 6″ wide. Letter corners as in chart. Line AB = front edge of surplice front. Point 1 = 3″ from A. Point 2 = 4 1-4″ from A. Point 3 = 1 1-2″ from 2. Point 4 = 1″ from 3. Point 5 = 1-2 distance 3 to 4. Point 6 = 1-4″ from 5. Point 7 = 3 1-2″ from C. Line A-1 = shoulder. Line 3-7 = under arm. Curve 1-4-3 = front of armhole. In cutting, fold selvages together, and place line AB even with selvage, allowing for hem. Shirr shoulder to fit shoulder of back.

Figure 2. Back of waist. Take paper 3″ long, and 4″ wide. Fold through centre into oblong, 3″ long and 2″ wide. Letter as in chart. Point

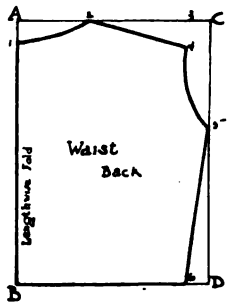


FIG 2

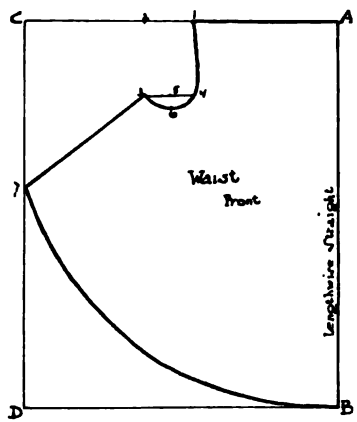


FIG 1

PATTERNS FOR 19" DOLL
SCALE +"=1"

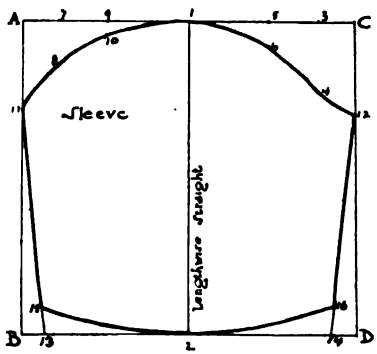


FIG 3

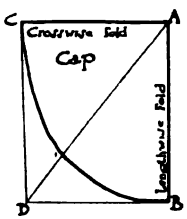


FIG 4

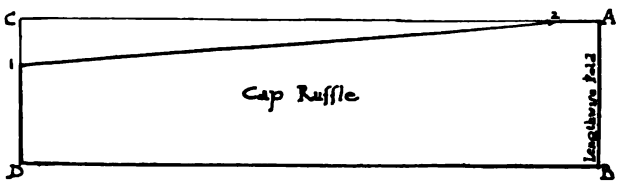


FIG 5

1 = 1-2″ from A. Point 2 = 1 1-2″ from A. Point 3 = 3 1-2″ from A. Point 4 = 1 1-2″ from 3. Point 5 = 2 1-4″ from C. Point 6 = 1 -2″ from D. Line 1-B = center of back. Line 2-4 = shoulder. Line 5-6 = under arm. Curve 1-2 = neck. Curve 4-5 = back of armhole. In cutting, place centre of back on lengthwise fold of material. Face back of neck with bias strip of material.

Figure 3. Sleeve. Take paper 6 1-2″ long and 7″ wide. Letter corners as in chart. Point 1 = center of line AC. Point 2 = center of line BD. Point 3 = 3-4″ from C. Point 4 = 1 1-2″ from 3. Point 5 = 1 3-4″ from C. Point 6 = 1-2″ from 5. Point 7 = 3-4″ from A. Point 8 = 1″ from 7. Point 9 = 1 3-4″ from A. Point 10 = 3-8″ from 9. Point 11 = 2″ from A. Point 12 = 2″ from C. Point 13 = 1-2″ from B. Point 14 = 1-2″ from D. Point 15 = 4″ from 11. Point 16 = 4″ from 12. Lines 11-15 and 12-16 = inside seam of sleeve. Curve 11-1-12 = top of sleeve. Curve 15-2-16 = lower curve to be gathered into deep cuff. Shirr across sleeve about half-way down, running shirrings even with lower edge. In cutting, place line 1-2, lengthwise straight on goods (even with selvage).

Figure 4. Cap. Take paper 7″ long and 6″ wide. Fold lengthwise and then crosswise, and letter corners as in chart. Draw diagonal AD. Point 1 = 1 1-4″ from D. Curve C-1-B = edge of cap. In cutting, fold material in same manner as paper. Gather outside edge of crown, and sew onto a narrow tape, which has been measured to fit size of doll's head.

Figure 5. Cap Ruffle. Take paper 12″ by 1 1-2″ and fold in centre. Letter as in chart. Point 1 = 1″ from C. Point 2 = 1″ from A. Line 1-2-A = edge of ruffle to be shirred to fit head size. French seam back of ruffle 1-D. Hem 1-2″ wide on straight edge BD, allowed for. Trim with narrow black ribbon and bow in front.

In cutting, line AB may go on either lengthwise or crosswise fold of material. Make skirt straight and full to reach to the ankles.

For placket of skirt, and directions for apron, refer to September number of The School Arts Book.

A three-cornered kerchief of soft, white material, may be worn inside neck of waist, the surpliced fronts crossing over kerchief.

For a full size pattern (to fit a 10 or 12 year size), these dimensions may be multiplied by 3.

BLANCHE E. HYDE

Newton, Massachusetts

METALRY

SCARF PIN

NOVEMBER is the month when we begin to think of Christmas gifts. Our friends appreciate the gift made by the giver a great deal more than one purchased at the shop, and a piece of good jewelry is always appreciated, so we will have our problem this month the making of a scarf pin.

Any kind of pin, if long enough, would answer the purpose of a scarf pin, but it has always been the custom to make it an ornamental thing as well as useful. The essentials of a scarf pin are a stone, precious or semi-precious, a setting and a pin. Semi-precious stones are now to be found at reasonable prices and when appropriately set make a very attractive bit of jewelry.

The size and shape of the setting is determined by the size and shape of the stone, so that it is necessary from the beginning to have the stone. There are a great many ways of making settings, but only the simplest kind will be described here. Many semi-precious stones look very well set in silver, so for this problem silver will be used. Silver is worked about the same as copper, except that it melts at a lower temperature so it requires a little more care in soldering.

To make the setting for this pin, cut a strip of 26-gauge silver about one-eighth of an inch wide and long enough to go around the stone. Using the round nose plyers, bend one end of the strip, first as shown at A, Plate 1. and then as shown at B, having it fit the stone closely. With the shears cut off the end that laps over, leaving the strip in the shape shown at C. The joint is then soldered. As this is the first time it has been necessary to introduce soldering in the work-shop problems, it will be necessary to leave the setting for a while and learn the process of soldering by practising with copper.

Take a strip of 20-gauge copper about three inches long and one-quarter of an inch wide and bend it into shape similar to the setting for the pin. After

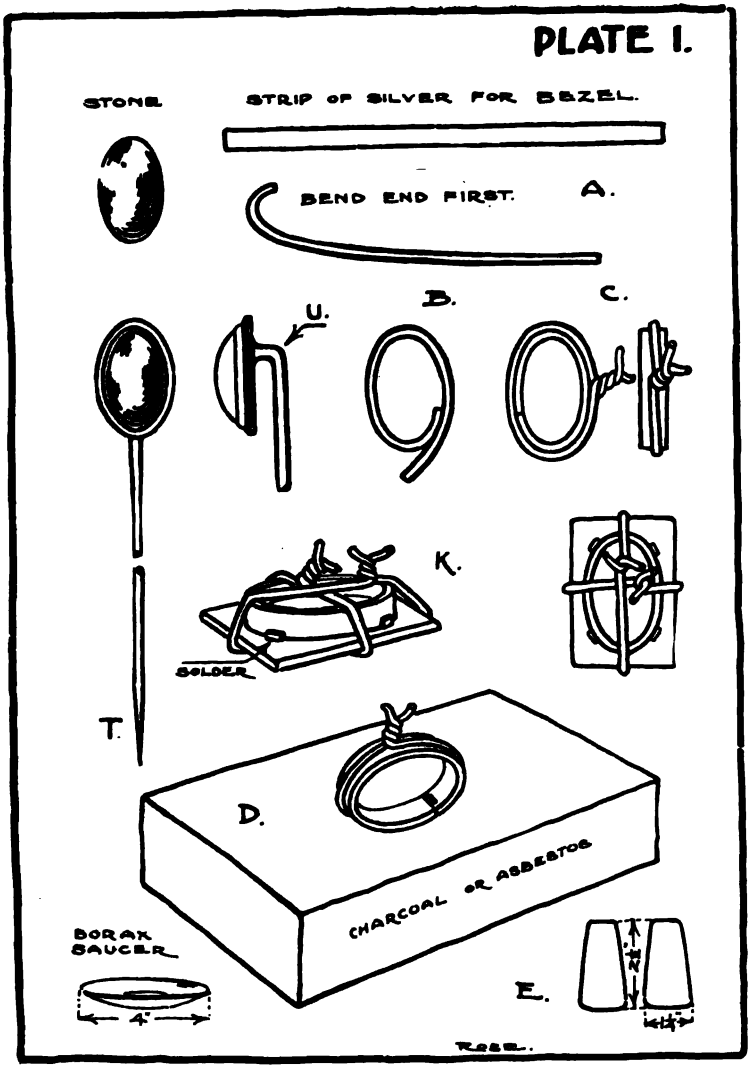
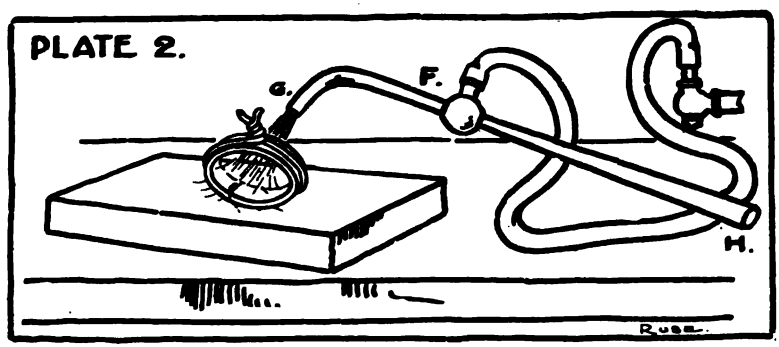


PLATE I.
STONE
STRIP OF SILVER FOR BEZEL.
BEND END FIRST.
A.
U.
B.
C.
K.
SOLDER
T.
D.
CHARCOAL OR ASBESTOS
BORAX SAUCER
4"
E.
RASE.

filing the ends square and coating with borax, bind together with No. 28 iron binding wire as at C. Care must be taken to keep the fingers away from the joints as any moisture or greasy substance will prevent the solder from flowing. The best results are obtained only by being extremely careful as to cleanliness throughout the process. Take a small saucer or some shallow dish and place in it about a half teaspoonful of powdered borax and add about twice as much water. With a spoon on a block of wood shaped like Figure E, Plate 1, stir or grind the borax until it becomes like thin cream. With a small, soft hair brush, coat the parts to be soldered, being careful to get no more borax about than is necessary. The solder may be obtained any thickness, but 22 or 24 gauge answers for most purposes. After cutting the solder into pieces of the required size, drop them in the saucer with the borax to give them a coating



of borax and to remove any grease that may have adhered to them. After binding as stated above, place the ring or band on a piece of asbestos board or charcoal block, Plate 1, D, and apply a small piece of solder to the joint, about one-eighth of an inch long and one-sixteenth wide in this case. A mouth blow pipe, Plate 2, F, is now needed to supply the heat. The blow pipe may be connected to any ordinary gas jet with rubber tubing. After turning the gas on and lighting at G, the end H is placed in the mouth. By blowing at this end it dilutes the gas with air and increases the intensity of the flame. The size of the flame is regulated by the gas cock. After a little practice in the use of the blow pipe, the copper joint already prepared may be soldered. In soldering, the heat should be applied very slowly at first until the water has evaporated and the borax crystallized and dissolved. The flame may then be

applied more directly and the object brought to the soldering heat. If the heat is applied too quickly it will throw off the solder; and if heated hotter than necessary it is liable to melt or burn the parts being soldered, so the process demands very close attention from the start.

After removing the wire, the ring is pickled*, washed in clean water and dried. The joint is then filed inside and out to remove any surplus solder that may have run about the joint. For a little further practice before going back to the setting for the pin, the ring we have just made may be soldered to a piece of copper as shown at K Plate 1. Cut a piece of 20-gauge copper about one-quarter of an inch larger than the size of the ring. File one side of the ring flat. Place the ring on the flat piece of copper keeping the distance from the ring to the edge about equal on all sides. Mark around the ring, leaving a line on the flat piece. Remove the ring and scrape bright the portion where the joint is to be with an old jackknife. Coat the scraped part with borax, also the filed face of the ring, and place them together and bind with wire as shown at K, Plate 1. Cut four pieces of solder about the size of the first piece used, coat with borax and apply at equal distances about the ring, either on the inside or the outside. The flame is then applied and the copper is soldered as before.

After this practice in soldering, the setting or bezel for the pin is taken up again and carried along in just the same way as described in the soldering process. The bezel at C, Plate 1, is soldered, pickled, and the joint filed up.

One face is filed true and soldered to the back of the setting as at K. It is then pickled to clean it and remove the borax. Next, saw around the bezel, leaving a little over one-sixteenth of an inch all the way around, as at L, Plate 3. The joint is now filed up and the edge filed true and then beveled a little as at M. The wire for the pin is now straightened and one end soldered to the back of the setting a little above the centre, N. Clean the place where the joint is to be, coat with borax and place a small piece of solder close to the wire as at N, which is held in position with the plyers. The flame is applied till the solder flows all around, making a good strong joint as at O. It is again pickled for the last time.

The outer edge of the bezel at the top is next beveled or filed to an edge, P, Plate 3, to do away with unnecessary thickness. The stone is next put in place and the bezel burnished over the edge. This is done first by taking a small tool, R, with a square end, called a pusher. With this tool the setting

*See problem in October Workshop.

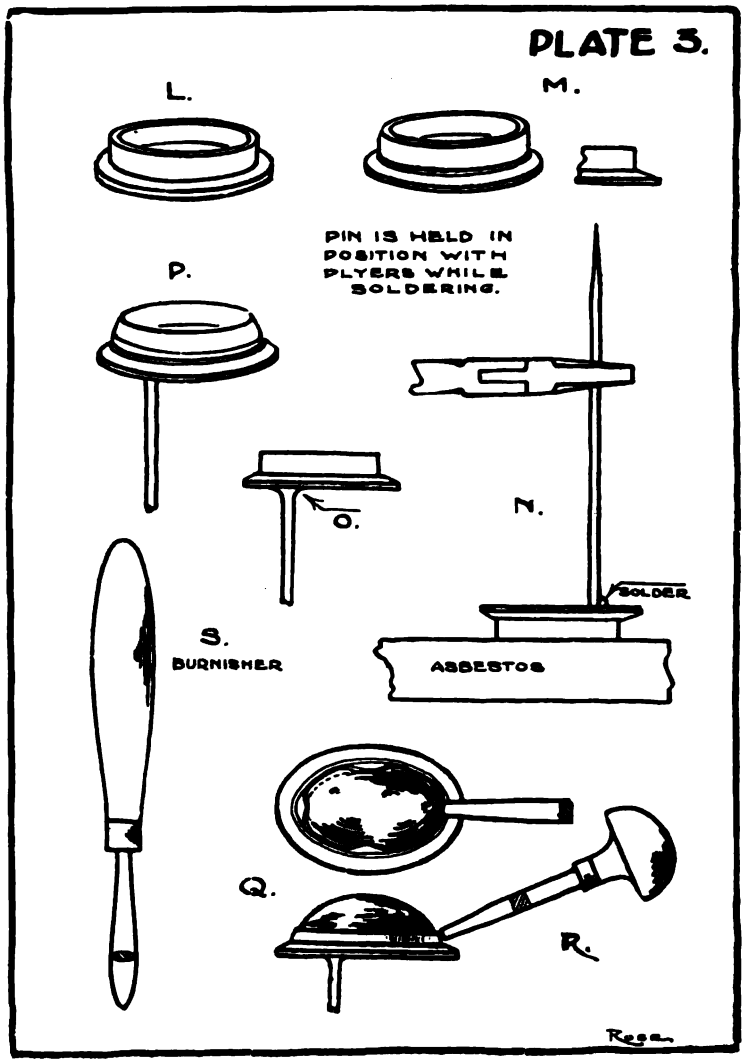


PLATE 3.
L.
M.
PIN IS HELD IN POSITION WITH PLYERS WHILE SOLDERING.
P.
O.
N.
SOLDER
ASBESTOS
S.
BURNISHER
Q.
R.
Rose

is pushed toward the stone, first at four points corresponding to the ends of the short and long diameters as at Q. This is repeated at the intervening spaces until all parts of the setting are touching the stone. A tool called a burnisher, S, is then taken, and with this the setting is rubbed or burnished down perfectly smooth. It will be necessary to use a smooth file here and there to finish any rough places. The end of the pin at T, Plate 1, is now pointed, beveling it about three-eighths of an inch from the end. Take a strip of wood about 7 inches long and one-half inch wide, tack a strip of felt or chamois skin on it and rub a little tripoli on the skin or felt and use this to remove roughness, and finally a little rouge to polish it. The pin may finally be left bright or grayed a little by oxidizing.* With the round nose plyers the pin is bent at right angles to the setting, as at U, Plate 1, the last thing.

AUGUSTUS F. ROSE

Boston, Massachusetts

MATERIALS. A semi-precious stone, a piece of sterling silver, No. 18 gauge, 5-8" x 7-8", a piece of sterling silver No. 22 gauge 3-16" wide and 3" long, a piece of No. 16 sterling silver wire. A small piece of hard silver solder (easy flowing), 12" of No. 28 iron binding wire, 1 oz. tripoli, 1 oz. rouge and 1 oz. of powdered borax.

TOOLS In addition to our present equipment the following tools will be needed for this problem: Pair 4 1-2" flat nose plyers, pair 4 1-2"round nose plyers, a burnisher, a pusher, pair tweezers, a brush, mouth blow pipe for gas, two feet rubber tubing, piece of asbestos board.

To enable those interested in this problem to get the necessary tools and materials, Mr. Rose will send them as specified above to any address on receipt of postal money order for $3.00 if ordered together. If ordered separately $1.00 for materials and $2.00 for tools. All correspondence to Mr. Rose should be addressed to 14 Woodbridge St., Cambridge, Mass.

* See October Workshop.

HELPFUL REFERENCE MATERIAL

Christmas Stories

Bible, Luke ii; Matthew ii; December numbers of the Book; Bailey, 1902; Mackenzie, 1903; Hayes, 1904; Moore, 1905; Campbell, 1906; Birchall, 1908.

Christmas Symbols

Christmas Packet, The Davis Press, Publishers. Book, December 1901; December 1905; December 1906; December 1908.

Christmas Gifts by the Children.

Bailey, Book, December 1901; Baker, Book, December 1908.

Christmas Cards

Book, December 1902; December 1904.

Calendars

Book, January numbers, 1902, 1903, 1904. Parallel Course Drawing Books, Hammock, I, p. 36; II, p. 34.

Lettering

Perry, Book, January 1904; Haney, Book, January 1904; Daniels, Book, May 1905; Hall, Book, April 1909. See also Outlines in October number, 1905; and Supplement, Christmas number, 1906. The Teaching of Lettering, Brown, Council Year-Book, 1906. Letters and Lettering, F. C. Brown. Grammar of Lettering, Lyons. Lettering and Writing, Smith. A B C of Lettering for Public Schools, Bull.

Things to Make

Described and illustrated in the Book. Articles by Brown, Newell, Jenks, in December 1905; Messenger, November 1905; Sanford, April 1906; Soper, May 1906. See also Outlines in November and December numbers of the Book, and the Workshop each month 1908–1909. Primary Hand Work, Seegmiller; Elementary Sloyd and Whittling, Larsson; Problems

in Woodworking, Murray; Industrial Work for Public Schools, Holton and Rollins; Educative Handwork Manuals, Chamberlain. Council Year-Book, 1907: Toy Making as a Form of Constructive Work, Garritt; Centers of Interest in Handwork, Boone; Constructive Work in Town Schools without Special Equipment, Soper. Parallel Course Drawing Books, Hammock. The Manual Arts for Elementary Schools, Hammock.

NOVEMBER

THESE are the days when skies put on
The old, old sophistries of June,—
A blue and gold mistake!

Emily Dickinson's Indian Summer

1 MON — **All Saints' Day. Bastien Lepage b. 1848. Bryant b. 1794.**
His great Joan of Arc is in the Metropolitan museum

2 TUE — **Matilda d. 1083. Benvenuto Cellini b. 1500. &c.**
Queen of William the Conqueror, who pictured his mighty deeds on the Bayeaux Tapestry.

3 WED — Florentine hot-head, soldier, traveler, goldsmith, who played the flute, &c created and cast in bronze the great Perseus.

4 THU — **Guido Reni b. 1575.**
Creator of the Aurora.

YET one smile more, departing distant sun,
One mellow smile through the soft vapory air,
E'er o'er the frozen earth the loud winds run,
Or snows be sifted o'er the meadows bare.

William Cullen Bryant.

5 FRI — **Hans Sachs b. 1494.**
The Cobbler who sang and wrote songs; about whom Wagner wrote the music in the Meistersingers.

6 SAT

7 — **Paul Baudry b. 1828.**
French painter: great draftsman.

'Tis time to light the evening fire,
To read good books, to sing
The low and lovely songs that breathe
Of the eternal spring.

Alice Cary.

8 MON — **Thomas Bewick d. 1828.**
English wood-engraver, to whom we owe the revival of the art. His best cuts in the General History of Quadrapeds have never been excelled in their peculiar merits.

9 TUE

10 WED — **William Hogarth b. 1697.**
Engraver and painter. The satirist of the brush. As serious in his art as he was faithful in reproducing the foibles and furniture of his day.

11 THU

Lofty trees I see barren of leaves,
Which erst from heat did canopy the head,
And summer's green all girdled up in sheaves.

Shakespeare.

12 FRI

13 SAT — **Robert Louis Stevenson b. 1850.**
Brave and sweet artificer in words. The invalid who sounds always the ringing note of health: beauty and joy in nature and in life. "To travel hopefully is a better thing than to arrive."

Stevenson.

14 — **Claude Monet b. 1840.**
French landscape painter. The rallying point of Impressionism

15 MON

NOVEMBER

Pale shining flowers upon my window pane
The silver pencil of the winter draws.
Stevenson

16 TUE ◐ "Eastlake" implies the Dark Ages of Interior Decoration on which at length the light of Wm. Morris dawned.

17 WED ◑ **Sir Charles Eastlake b. 1793.**
English painter and writer.

18 THU ◑ **John Gutenburg b. 1410.**
The pioneer of printing. Mainz, Germany.

19 FRI ◑ **Bertel Thorwaldsen b. 1770. at sea.**
Icelandic sculptor, whose father and early teacher was a carver of figureheads for ships. His monumental-museum is the chief attraction at Copenhagen.

20 SAT ◑

21 ◐ **Claude Lorraine d. 1682.**
He effected a revolution in art by simply setting the sun in the sky.
Ruskin

22 MON ◐ *An edict of the Lombard king, signed Nov. 22nd, 643, fixed the liability for accident during building upon the Comacini Masters. On their organization,—the great guild of Cathedral Builders,—modern Freemasonry is moulded. They used Solomon's knot as a symbol.

23 TUE ◐

24 WED ◐

25 THU ○ **Thanksgiving Day**
For the kindly fruits of the earth.

26 FRI ○ **William of Wykeham**
Father of the public school system, and of the Perpendicular style of architecture. Founded New College, Oxford, the charter of which is dated Nov. 26, 1379.

27 SAT ○ **Horace d. B.C. 8.**
Immortal singer in Latin.

28 ○ **William Blake b. 1757.**
English mystic, poet, engraver, painter. His lyrics blazed the trail for Wordsworth and the Lake Poets.

29 MON ○

30 TUE ○ **William A. Bouguereau b. 1825.** HB
French painter. An inimitable draftsman.

Are ye the ghosts of fallen
Of flakes of snow, [leaves,
For which through naked
trees, the winds
A-murmuring go?
Or are ye angels bearing home
The lost unseen
Of truant spirits, to be
clad
Again in green?
Jas. B. Tabb.

Once more the liberal year laughs out [gold;
O'er richer stores than gems or
Once more with harvest song and shout [fold.
Is nature's bloodless triumph
Our common mother rests and sings.
Like Ruth, among her garnered sheaves;
Her lap is full of goodly things
Her brow is bright with autumn leaves.
And let these altars, wreathed with flowers
And piled with fruits, awake again
Thanksgiving for the golden hours,—
The early and the latter rain.
Whittier

The pure soul shall mount
On native wings
Leaving a track of light for men to wonder at.
William Blake

PRISCILLA AND JOHN ALDEN

By

ALFRED FREDERICKS

Priscilla, the May-flower of Plymouth, modest and simple and sweet;
She, the Puritan girl, in the solitude of the forest.

* * * * *

Thus for a while he stood, and mused by the shore of the ocean,
Thinking of many things, and most of all of Priscilla;
And as if thought had the power to draw to itself, like the loadstone,
Whatsoever it touches, by subtile laws of its nature,
Lo! as he turned to depart, Priscilla was standing beside him.

Longfellow.

EDITORIAL

THANKSGIVING need not monopolize the attention during November, but for various reasons it is likely to, and the wise teacher will govern herself accordingly. In the minds of children, of country children especially, it looms large. The holiday, the visit to grandpa's, the meeting of the cousins, the feast, the games in which fathers and mothers participate, all these things help to magnify the importance of the day. It is indeed a splendid center of correlation. Read about the Feast of Ingathering in Chambers' Book of Days, and about the Harvest Customs in Walsh's Curiosities; read Fast and Thanksgiving Days of New England by W. De Loss Love, Jr., or Customs and Fashions in Old New England by Alice Morse Earle, and you will be embarrassed with suggestions for fruitful language work, design, and drawing.

The teacher is to be congratulated who has had the personal experience of Thanksgiving in the country. I wonder sometimes if the day can carry such a wealth of association for anybody else as it does for one who has lived on a farm in our northern zone. We usually get at least one adult storm of cold rain before Thanksgiving day,—a storm that convinces the most skeptical that winter is at hand. The trees rock and moan, the dead leaves are hustled along the

paths and whirled into melancholy heaps; the rain drives across the window panes; the wind growls down the chimney. This is the time when the good man of the house and all the members of his household begin to realize how thankful they ought to be. Borne in upon them as they sit by the bright open fire, after supper, with their books and home handicraft, is the consciousness of the snug barn stocked with odorous hay and contented cattle, of the tight shed piled high with dry wood, of the dim cellar rich with vegetables and fruit, of the attic shelves packed with preserves. All the necessities and luxuries of life are at hand. Every member of the family has helped to gather and store them in preparation for the long siege. Now let old winter do his worst! In that home there is enough and to spare.

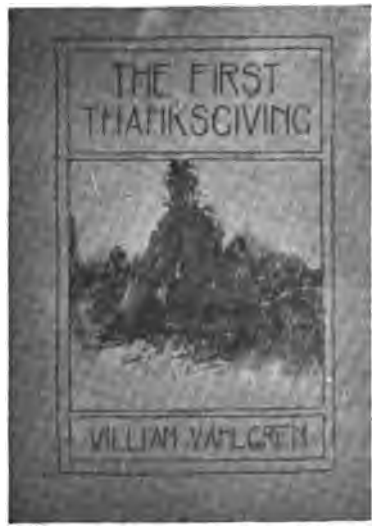
How can one who lives in a great city know what autumn really means? "With him life can scarcely be divided into seasons; time with him does not progress, it revolves. Of seed-time or harvest, of the reapers bending over the corn, or the grape gatherers threading through the vines, of the grass in the orchard made white with broken blossoms, or strewn with fallen fruit; of these he knows nothing." How can one who deals only with figures and books, with street cars and elevators, know what the harvest means? He lives from hand to mouth; without the few cents in his pocket and the café or the grocery around the corner he would starve. But perhaps one born and bred in the city sees another side quite as vividly as I see this. I hope so. I wish everybody could have such opulent memories of a home somewhere, as I have of mine here amid the Massachusetts hills.

In my teaching in cities, as the Thanksgiving festival approached, I used to say to myself, "Remember, remember. In hundreds of homes here this year there will be no turkey for

dinner, no nuts to fetch from the attic, no apples to bring from the cellar, no games with uncles and cousins." Ah, it is a problem, this teaching of children. What pictures shall we paint for them? How far should we go when we know that sensitive little souls here and there will be cut to the quick by the fearful contrast between our ideal and their actual? And yet, shall they not have the vision? "Timothy's Quest" would never have been had he not caught a glimpse, even in Minerva Court, of the White Farm. The slum, the crowded tenement, the yards and streets of ashes and brick alone, these are the nightmares of an already doomed industrialism. The fruitful earth where sunlight and shadow are pure, where rain falls on flowers, and birds sing at dawn, where the sweet air is health, and the jeweled night is peace, that is the normal thing, that is the thing that endures. The only city that "hath foundations" is the city with pure flowing waters, with gardens, with trees yielding their fruit every month. It is the city happily married to the country that will sit down in the Kingdom of God, not the city that squats in its own filth on the bosom of the earth and crushes the life out of it. Let us give the children the vision. "Where there is no vision the people perish."

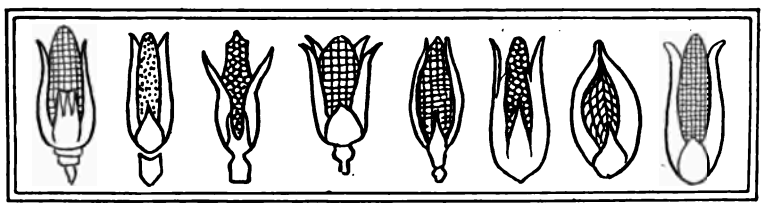
¶ The frontispiece this month is therefore a glimpse of the country from which all city children are fed. It was painted from nature, by Walter Sargent, a country boy, though now Professor of Education in Chicago University. The best essays produced last year at Thanksgiving time, though made in city schools, were essays dealing with the country, made by children who knew the country. But good work was done wherever there was a good teacher. A few specimens are reproduced herewith. The first illustration on page 292 is from the cover of an essay, The Story of the Pilgrims, by Willie Howell, residence and grade unknown. The second is from the cover of an illus-

STORY OF
THE PILGRIMS


THE FIRST
THANKSGIVING

HARVEST
FESTIVAL
• 1621 •

FURNITURE
OF THE
COMMON HOUSE
PLYMOUTH
1621



trated booklet on the history of the festival, The First Thanksgiving, by William Vahlgren, eighth grade, Fitchburg, Mass. The third illustration is the outside of a clipping file made by Katherine McNalley, 8th grade, Mt. St. Joseph Academy, Brighton, Mass. The fourth is the cover of an illustrated pamphlet containing drawings and descriptions for making the furniture of the Common House, Plymouth, by Anna Rothwell, 8th grade, Mt. St. Joseph Academy, Brighton, Mass. On this page is reproduced the cover of an illustrated menu, by William Franket, Derby, Conn. The head band on this page contains tracings from other covers made by pupils in William's class, 8th grade children, showing the variety of conventional forms derived from an ear of corn. The initial is grouped with an ornamental band from the cover of a language paper on King Philip, by Chester Bell, 9th grade, N. Wilbraham, Mass.

As much good discipline in handicraft, as much training of the taste

may be gotten out of the making of a beautiful booklet, in the upper grades, as out of any problem given in the Outlines.

¶ Whatever we do, let not common sense forsake us. I have reproduced here side by side two interpretations of the same subject, a Pilgrim ship in Plymouth harbor at the time of the

first Thanksgiving. One of these represents the craft by day, the other by night. The night scene is perhaps the more dramatic. It suggests that other historical picture, of another ship, as Longfellow describes it,

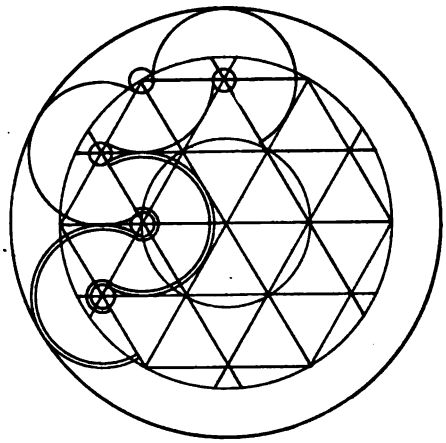
"Just as the moon rose over the bay,
Where swinging wide at her moorings lay
The Somerset, British man-of-war;
A phantom ship with each mast and spar

Across the moon like a prison bar;
And the huge black hulk that was magnified
By its own reflection in the tide."

I have placed these here for comparison. The night scene is an example of entirely legitimate paper cutting. The day scene is a drawing made with ordinary writing ink, by Violet Shuster, in a third grade, N. Manitowoc, Wis. The two exemplify results secured by teachers of two distinct types. The first is fond of paper cutting and applies it whether it happens to be the most direct and appropriate means of expression or not. The second is fond of good art. Think of the extra work involved in the cutting of the silhouette of the ship, and how crude after all the silhouette must be. The ship had to be drawn anyhow; how much better to draw it directly upon the paper with the brush. Many details of the vessel, especially of the rigging, had to be sacrificed in the cutting. All thought of reflections, either of the moon or of the black hulk (which Longfellow uses with such effect in his description), had to be overlooked. In the silhouette the selection of values was arbitrary according to the paper available; in the other the pupil had the educational advantage of producing his own values. When shall we learn that fine art is the result of the wise selection and skilful use of the medium, whether it be in the production of a primary grade illustration or in the building of a Greek temple? Let us not be swept off our feet by mere materials, or by love of novelty, or by love of stunts.

¶ The cover stamp this month is venerable; anybody can guess how old it is, but the wisest of archeologists would hesitate to fix a date more definite than "from 3000 to 1000 B. C." It comes from Crete, from Knossos, where men have lived since the Neolithic age. The design is reproduced from a drawing

I made in the museum at Kandia in the summer of 1908. I call it the Minoan Meander. It recurs frequently, slightly varied, upon all sorts of objects. In this particular case it was incised upon a circle of pure gold about three inches in diameter. The museum contains hundreds of such circles bearing incised designs from butterflies, cuttle fish, flowers, and stars, all conventionally drawn with the utmost care, for what purpose nobody is sure. I puzzled over the geometric construction of this a long time before I could sketch the figure accurately. Here it is. To draw it, one had better begin with the central circle! If anybody wants the meander to fill a circle of a given diameter, he will have to figure it out; it's too much for me! These Minoans were a wonderful folk. The first sea power, their capital was the only city of the ancient world yet discovered without walls. They held the carrying trade of the world for two thousand years before the little ark of Moses floated in the Nile. When their royal palace, the home of the Minotaur, was sacked by the Greeks under Theseus, who had discovered the key to that labyrinth by the help of Ariadne, the Homeric Age had scarcely dawned.



¶ Our November pictures, page 288, are from the originals in oil, by Alfred Fredericks, an American painter, whose work is neither abundant nor widely known. It has the excellence

of good draftsmanship and temperate color. The paintings are owned by Mr. Walter B. Ellis of Boston, by whose kind permission they are here reproduced for the first time. The figures of Priscilla and John Alden are so simply posed and so well defined that they may be copied easily for use in language papers or interpreted without difficulty into decorative elements for book covers.

¶ When the children are using wood in the construction of their toys and other objects this fall, it may help them to be a little more careful of their material to know something of the effort the United States government is making to preserve our forests. White pine, for instance, which was once considered inexhaustible, has fallen off 70 per cent. in cut since 1890, and more than 45 per cent. since 1900. Teachers of manual training would do well to get into touch with the Forester, Forest Service, Washington, D. C., and receive from time to time the government publications on this topic.

¶ The old geometric method of teaching drawing in the elementary schools abroad has given place to something akin to what the Europeans call the American method. No doubt the International Congresses on the teaching of drawing have had something to do with the transformation which has taken place in official programs. Teachers of drawing in this country will do well to consider rather carefully the new program recently put forth by the French government. We are indebted to Miss Mary C. Wheeler of Providence, R. I., for the translation. This program deserves special study. It will be observed that the French begin the study of the clothed model in the sixth grade, which corresponds roughly to our sixth grade. When the results of this work appear in their exhibit at the next International Congress, our pose drawing will look more than ever like play.

We have said in the past that the French work is superior to ours in technique but not in subject matter or spirit. Now that they have come over to practically our subject matter and spirit, it behooves us to emulate them in excellence of technique.

NEW PROGRAM FOR THE TEACHING OF DRAWING

The master will not have to introduce in the class all the models or all the details of the proposed exercises. It rests with him to make a reasonable choice appropriate to his taste and to the ability of his pupils. We have desired merely to indicate the considerable variety of the exercises which one can undertake to sustain the curiosity and to refine the sense of observation.

PREPARATORY DIVISION

First and second years. (Corresponding to our 2nd and 3rd grades.)

I. Drawings in black or colored crayons of very simple objects. The objects are placed before the pupils. Modelling.

II. Drawings from memory after the objects previously drawn.

III. Freehand drawings after lessons on certain things.

IV. Illustrated exercises; exercises in French, history or geography.

V. Freehand drawings made out of class.

ELEMENTARY DIVISION

Eighth and seventh grade classes. (4th and 5th grades.)

I. Drawings on paper in black or colored crayons of simple ordinary objects. Modelling of the same models.

II. Drawing from memory.

III. Drawings explanatory of lessons on particular things, history recitations, etc., made in class.

IV. Elementary decorative arrangements.

V. Illustrated exercises.

VI. Freehand drawings made out of class (crayon, pastel, water color, etc.).

FIRST CYCLE

Sixth and fifth grade classes. (6th and 7th grades.)

I. Drawings made in class from models:

a. Simple objects of ordinary use;

b. Zoological and botanical specimens;

c. Clothed living model
d. Models taken from the history of art (in the sixth grade those taken from Egyptian, Chaldean, Assyrian, Persian, Greek and Roman monuments; in the fifth grade those taken from Byzantine, Arabic, Roman and Gothic monuments).

II. Decorative arrangements.

III. Drawing or sketches from memory.

IV. Drawings made out of class (crayon, pastel, water color, etc.), especially illustrations of exercises.

V. Modelling.

Fourth and third grade classes. (8th and 9th grades.)

I. Drawings made in class from models:
a. Simple objects of ordinary use;
b. Zoological and botanical specimens;
c. Clothed living model;
d. Models taken from art monuments of the Middle Ages, the Renaissance, the 17th, 18th and 19th centuries;
e. Sketches in perspective after models utilized for geometrical drawing.

II. Decorative arrangements.

III. Drawings and sketches from memory.

IV. Drawings made out of class (crayon, pastel, water color, etc.), especially illustrations of exercises.

V. Modelling.

SECOND CYCLE

Classes of second and first grades (1s tand 2nd years, High School), philosophy and mathematics.

I. Drawings made in class:
a. Living model clothed, studies in whole and in detail;
b. Drawing from the cast: figures and monuments of antiquity, of the Middle Ages, of the Renaissance, of modern and contemporaneous times;
c. Studies from the drawings of the great masters (human figures and landscapes);
d. Drawings and sketches in perspective of physical instruments, of organs, of machines, of details of architecture;
e. Drawings from the magnifying glass and the microscope;

f. Drawings and sketches of landscapes under the professor's direction.

II. Decorative arrangements.

III. Drawings and sketches from memory.

IV. Drawings made out of class (crayons, pastel, water color, etc.).

V. Modelling.

VI. Study of reproductions of works of art. Visiting museums and monuments.

Art. 2. The present order will take effect October first, 1909.

Dated at Paris, January 6, 1909.

CORRESPONDENCE

Dear Mr. Bailey:— Stamford, Conn.

In response to your suggestion I send the lesson on dolls.

This lesson is best adapted to a second grade, i. e., second year in school, although I have received good results from some first year children after a second attempt.

I was at first rather timid about presenting the subject to a mixed class, lest the male portion of my audience should feel its dignity assailed; but my fears were groundless; there was even more enthusiasm from that side of the house than from the presumably surfeited feminine contingent. One small boy, whose doting mother had confided to us that he had received fifty dollars worth of Christmas gifts, was questioned somewhat dubiously as to whether he liked his paper dolly. "Well, I guess," was his emphatic response, "I like it better than all my toys 'cause I made it myself. I take it to bed with me every night." So the lesson on paper dolls remains as its own best excuse.

In all lessons for young children there are crucial points where a doubled watchfulness is necessary to insure the success of the work. It will be a great saving of time if the children at the very beginning of their school career are taught to crease and tear paper accurately. In some lessons it may obviate the passing of scissors; then again, the torn edge will generally be more even than the one cut with scissors; lastly, besides developing dexterity, it is more expeditious.

MATERIALS FOR DOLL LESSON. One sheet white paper about 6″ x 9″, colored crayons, scissors, tablets; one 1″ square, one 1″ x 2″. Cut out heads from children fashion plates or other pictures.

DIRECTIONS. Papers on desks—tall (more comprehensible than vertical), fold lower edge up about so far—(teacher holding paper shows about two inches turned up at end), crease sharply and tear. Fold the narrow strip down the center, unfold and place on desk with the crease uppermost; place square tablet in the middle of lower edge of the paper and draw line along top of tablet; place oblong tablet upright on line just drawn and trace around three remaining sides; place square tablet above oblong and trace around square. Be sure that the crease passes through the center of these tracings. Draw neck and then oval for head.

As the paper is to be folded and cut double, the arm and leg need be drawn on one side only. The children experience most difficulty with the arms; directions should therefore be very explicit at this point; the entire lesson, line by line, should be presented large on the blackboard and, to obtain the best results, also on paper of the same size as used by the pupils.

Paper Doll
1. Body Fold on dotted line and cut
2. Two Dresses
3. Finished doll. Head cut from magazine.
4. A Party dress
5. A Street dress
1.
2.

Next, draw a slanting line from the shoulder to a point on line with the waist; place a dot half way down the side of the skirt (oblong), and draw from elbow to this dot; place a dot half way down between shoulder and waist line, from this point draw lines parallel to those just drawn; draw hand (simplified).

The leg and foot need no explanation, only the admonition to begin the line in the middle of half of the lower edge of the oblong and slant slightly toward the center. In cutting, leave the feet and legs in one piece to secure greater stability; the arm is cut around and up to the elbow.

For making the dress or coat select one colored crayon and one black; fold the larger paper in half, lay on desk with open edge towards the pupil and begin by placing the square tablet at the top so that it touches the fold not too near the left edge; trace around it lightly with the colored crayon; beneath the square, trace the oblong, then draw sleeves freehand, and follow with lines giving fulness of skirt; with the black crayon draw belt, collar, cuffs or other simple trimming; fill the dress in lightly with the colored crayon, being sure always to have the stroke follow the direction of the drapery; cut double and finish the back of the dress to harmonize with the front.

For a boy's kilt suit use the oblong at the top and the square below. When dressing the doll bring the arms forward over the skirt.

Helene Jensen Chaplain.

Dear Mr. Bailey:— Dalton, Mass.

I'm glad you were so much interested in the little Indian Village. I'm sending you another photograph of it, unfolded, as you suggested, also an outline of the steps in planning the village.

Let me state first the source of my ideas in the work. First, in connection with visits to Washington, D. C., I made a special study of the ethnological exhibits in the National Museum. These exhibits include a valuable series of life size groups of Indians, representing the customs, arts and industries of their race. Second, I knew Zit-kala-sa (Red Bird) personally. Therefore I was much interested in her "Memories of an Indian Childhood." These stories of her own life appeared at one time in the Atlantic Monthly.

The following are the developmental steps in construction of the village:

I. Aim—"Employment of all hands" on the work. Every child is sure to be able to help, in some way.

II. Interest—By conversational lessons, during "Hiawatha time."

III. Scene—Land of the Ojibways on the shore of Gitchee Gumee or Big Sea Water.

IV. Time—"The Moon of Falling Leaves."

V. Collection of material by teacher and pupils.

1. Bits of an old mirror to put in the sand table, for Gitchee Gumee.

2. Bare twigs for trees, also spruce or balsam twigs (preferably, the latter) for the forest.

3. Forked twigs and tiny cross bars, upon which to dry the pemican (meat of deer and buffalo).

4. Five-inch twigs for wigwams.

5. Moss and spruce or balsam needles, and nahma-wusk (spearmint),

if possible, to sprinkle around and help the woodsy fragrance. Sweet grass would also add to this.

6. Waw-beek (rock) and little pearl shells for wampum. Both of these might be placed on the shore.

VI. Construction Work—For the Indians, use penny jointed dolls, tinting them with brown water color paint.

1. Costumes—Rectangular pieces of paper twice as long as the dress is to be and wide enough to go around doll's waist. Fold the paper once the short way, in order to hang it over the doll's shoulders. Make a little cut in the centre of this fold parallel with long edges of piece, that the garment may be placed over the head. The photograph shows how the dress was fringed across the bottom and from the fold (on the edges) down to the waist line. Crayon was used to add simple stripes at the head of the fringe, the only limitation being the use of not more than three neighboring colors. This pre-

caution was taken to avoid the common but false idea that the Indians always used crude colors.*

Those children doing sufficiently well, were allowed to use chamois in the final costume.

2. Headdress of Indian braves—Small feathers were cut down and inserted in band of chamois. This was pasted to the head.

3. Bows—These were made of small reeds. Arrows—made of tooth-picks, with a bit of paper inserted in cut at the end.

4 Wigwams—Made of paper, from patterns, or by cutting out compass arrangements made by upper grade children. The wigwams should also be decorated with crayons. Two stages were shown in putting up the wigwams, one where only three poles were tied together, tripod fashion. Then while one squaw assists in carrying the poles, three others put them up. The real wigwams are made of leather. The canoes are made from patterns and decorated with crayons according to pictures the children may find.

5. Bowls for meal—Made of clay. Burnt matches were brought for charred sticks, to show that the Indians had just had their dinner.

6. Baskets of Nokomis—Made by sewing braided raffia.

7. Blankets—Made by sewing in simple line border of black and white in piece of red flannel. Third grade children might weave the blankets.

8. Picture writing for the Ojibway Meda (medicine man). This was first done on paper, then on birch bark. The writing was made up of the crude symbols (drawings of Indians and animals) which the Meda used to record his songs.

Long before the work is completed the children have gotten sufficiently into the spirit of things to appreciate the Indian word, Nush-ka! (Look! Look!) It is with great pride that they point out their handiwork, in the little village.

After the completion of models for the village, is the time when the children know how to illustrate (by drawing) the customs, arts, and industries of Hiawatha's people.

Respectfully yours,

Lena L. Andrews.

*Some of the tribes dressed in such a way that the color scheme of the whole family outfit, of costumes, was harmonious.

THE ARTS LIBRARY

BOOK REVIEWS

English Literature. By William J. Long. 582 pp. 5 1-2 x 8. Illustrated. Ginn & Co. $1.35.

This book is of interest to teachers of art for the reason that the author's aim is to promote a love of literature primarily as a form of art. In glancing through this handsome volume illustrated with examples of the work of the early scribes, including a frontispiece in color, the Canterbury Pilgrims, from a royal manuscript in the British Museum, portraits, and reproductions from The Making of the Book series by Alexander in the Congressional Library, one cannot but feel that the prophecy of Colonel Parker is beginning to be fulfilled. "The day will come," the Colonel used to say, "when our whole course of study will be reorganized on the basis of the arts." To those who have known Dr. Long only as a brilliant writer of nature studies, this scholarly work, evincing the most painstaking research combined with unusually keen appreciation of literary beauty, will be a surprise. The author abhors books and methods "which make sawdust out of living trees." The book throbs with life and is therefore intensely interesting. The few and brief selections exemplifying the art of the various authors are appetizing and awaken a desire for more. Dr. Long provides for the satisfaction of this desire by presenting a selected list of works during each period best worth the reading. The historical introductions, the summaries, the chronological outlines, the suggestive questions, the literary map of England, the bibliography, index, and key to pronunciation, are features which help to make this volume of such a character that it ought to be epoch-marking if not epoch-making in the teaching of English literature in the public schools.

The Basket Maker. By Luther W. Turner. 60 pp. Fully illustrated. The Davis Press. 75 cents.

This book, as appropriate in binding as was its companion in the series, Copperwork by Mr. Rose, is a reprint of the articles on basketry which have appeared from time to time in The School Arts Book. Mr. Turner is a master of his subject, having tramped with Indians for materials, worked with Indians for processes, practised with pupils for methods, and studied with specialists for tasteful results. The illustrations are surprisingly clear and orderly; the text does not contain a useless word. In all the completed baskets there is nothing slovenly or in bad taste. The book is an absolutely reliable guide to the production of thoroughly good work.

Modern Methods of Arts Instruction. By Henry T. Wyse. 140 pp. 5 1-2 x 8 1-2. Fully illustrated. Henry T. Wyse, Edinburgh. 90 cents.

This is pre-eminently the book for American teachers who wish to become familiar with the best results of art instruction in Great Britain. The book includes twenty-four pages of superior photographic reproductions of the work of pupils from five to eighteen years of age, selected from forty typical schools in Scotland. It contains chapters on observation and representation, subjects in nature and art suitable for study and representation, eight different mediums of expression, the arrangement of classrooms for art instruction, drawing materials, craft work, principles of practical instruction, etc. For those who attended the Third International Art Congress in London the book will have special interest, as its plates were taken from work there exhibited. The commendable spirit of the whole book is reflected in a single sentence: "The methods of instruction in drawing in common with all other subjects of education cannot be permanently fixed"; and the author while stating the main features of the most advanced practice of the present day, anticipates an even greater development in the future. The book is well printed and bound with attractive end papers, and the plates are the finest of any which have appeared from the London Congress Exhibit.

Instruction in the Fine and Manual Arts in the United States. By Henry Turner Bailey. 184 pp. 6 x 9. Bureau of Education, Washington. Bulletin No. 6 of the Series of 1909.

In reviewing this book here it may be best to quote Commissioner Brown's letter of transmittal to the Secretary of the Interior:

"In connection with arrangements for American representation at the Third International Congress for the Advancement of Drawing and Art Teaching which met at London in the month of August, 1908, an inquiry, mainly statistical in character, was made by this office, touching instruction in the fine arts and in the applications of art to handicraft in this country. The results of this inquiry have been digested by Mr. Henry Turner Bailey, of Massachusetts, who was one of the official representatives of the Department of the Interior at the London Congress. I have the honor to transmit Mr. Bailey's monograph herewith, and to recommend that it be published in the Bulletin of the Bureau of Education. The subject to which it relates is of the utmost

importance, not only to the upbuilding of American civilization in one of its finest forms, but also to the progress of many of those industries which underlie our civilization. While the returns upon which this monograph is based are by no means complete, even such presentation of the subject as has been found possible with the materials at hand will undoubtedly prove extremely serviceable."

A Graded Course in Mechanical Drawing for Grammar Schools. By Edmund Ketchum. Four sets of plates. The Milton Bradley Co. 25 cents per set.

"The purpose of these plates is to furnish the teacher the means of presenting to her class a series of mechanical drawings which develop the idea of how working drawings are made, of accurate measuring, and of neatness and good arrangement on the sheet. They have been planned especially for the busy teacher." The first set, prepared for grade VI, presents objects involving two dimensions only. Grade VII includes several objects requiring three views. Grades VIII and IX are based almost entirely upon objects involving three views. The objects chosen are related to the child's interests in school and at home, and are of reasonable design. Mr. Ketchum, formerly Supervisor of Drawing for the city of Lowell, is now in charge of the art department of the State Normal School, Framingham, Mass. This series of plates is the result of a successful experience and cannot but prove useful in teaching.

Box Furniture. By Louise Brigham. 304 pp. 5 x 7 1-2. 160 illustrations, 8 full-page insets. $1.74. The Century Co.

The author says, "Two summers on the island of Spitzbergen taught me more than all previous experiments, the latent possibilities of the box. Our camp was located seven hundred miles north of the Arctic circle. Cut off from other materials, the work daily grew in interest and I felt anew the truth, so familiar to all, that work to be of real value, must be honest, useful, and beautiful." The book tells how to make a hundred useful articles for the home out of ordinary wooden boxes. The illustrations are for the most part drawn freehand in outline by Edward H. Ascherman. The book is solid full of suggestions for the teacher of elementary woodwork. The publishers claim it to be the cleverest, most practical, and most helpful handicraft book yet written. In the words of Uncle Minot, "They mebbe ain't fur wrong."

RECENT PUBLICATIONS

WILD LIFE ON THE ROCKIES. By Enos A. Mills. An unusual book recounting the unique experiences of an extraordinary man. It is a book for nature lovers and teachers of nature study. If it contained but one chapter, The Story of a Thousand-year Pine, it would be worth a place on the teacher's desk. Houghton, Mifflin Co. $1.90.

CONVENTION PROCEEDINGS OF THE AMERICAN FEDERATION OF ARTS. This volume of 176 pages, giving the papers and discussions at the convention held at Washington last May at which this organization was formed, should be in the hands of every person interested in promoting a more beautiful life in America. The report of the discussions is so complete that one gets from it a flavor of the meeting itself. Among the speakers were the Vice-president of the United States, several senators, the Rt. Hon. James Brice, the Ambassador from Great Britain, Dr. Brown, Commissioner of Education, and people well known in the art educational world, Miss Mechlin, Miss Levy, Sylvester Baxter, Royal Cortissoz, William Woodward, Walter Scott Perry, and such famous men in the realm of civics as George W. Cable, Edward T. Hartman, and Horace J. MacFarland.

MANUAL TRAINING REPRINTS. Two pamphlets of this series have appeared, the first The Construction and Flying of Kites, by Charles M. Miller, an admirable monograph fully illustrated, and the second, Coping Saw Work, by Ben W. Johnson, which translates the old bracket saw into the realm of sound industrial art education. Both pamphlets present attractive work for boys and girls in the realm which Mr. Bennett happily calls applied mechanics for elementary grades. Manual Arts Press, Peoria, Ill. 20 cents each.

THE AMERICAN CITY. Vol. 1, No. 1. A new monthly has appeared from the press of The American City Publishing Company, 93 Nassau St., New York. Among the contributors are Hon. Henry B. F. MacFarland, President of the Commissioners of the District of Columbia, John Nolen, the landscape architect, Dr. Richard Watson Gilder, Dr. Benjamin Ide Wheeler, and Dr. Charles W. Eliot. This is another document which those interested in civic beauty should see.

MASTERPIECES IN COLOR. New volumes: Chardin, by Paul G. Konody; Fragonard, by Haldane Macfall. Each with eight reproductions in color. Frederick A. Stokes Co. 65 cents net.

DOURIS AND THE PAINTERS OF GREEK VASES. By Edmund Pottier. Translated by Bettina Kahnweiler, with an introduction on the relation of Greek vase-painting to Greek literature and Greek mythology by Jane Ellen Harrison. A study of the chief characteristics of Greek painting, with an account of the life and work of Douris, one of the most prominent of the fifth-century vase-painters. E. P. Dutton & Co. $2.50 net.

GREAT MASTERS' SERIES. First volumes: Great English Portrait Painters, Leaders of English Pre-Raphaelites, Three Great Florentine Painters, Three Great Portrait Painters, Three Great Modern Painters. Each volume contains sketches of three famous artists, with twenty-four reproductions in color of their representative work. Frederick A. Stokes Co. Per vol., $2 net.

HINTS ON HOUSE FURNISHING. By W. Shaw Sparrow. A book for those seeking to combine beauty with practical economy. Illustrated in color. John Lane Co. $2.50 net.

CHATS ON OLD EARTHENWARE. By Arthur Hayden. A complete manual of old earthenware, with chapters on its history and processes of manufacture, tables of manufacturers' marks, lists of prices, a bibliography, and indexes. Illustrated. Frederick A. Stokes Co. $2 net.

ARTISTS PAST AND PRESENT. By Elisabeth Luther Cary. The contents include: Antoine Louis Barye; The Art of Mary Cassatt; Max Klingen; Alfred Stevens; A Sketch of Jacques Callot; Carlo Crivelli; Fantin-Latour; Carl Larsson; Jan Steen, etc. Illustrated. Moffatt, Yard & Co. $2.50 net.

MASTER-PAINTERS OF BRITAIN. Edited by Gleeson White. About 150 large reproductions of pictures by famous British artists, from Hogarth to Byam Shaw, with introductions and descriptive text. John Lane Co. Paper, $3. net.

LITTLE BOOKS ON ART. New volumes: The Arts of Japan, by Edward Dillon; Illuminated MSS., by John W. Bradley. Uniform with the volumes previously issued:—Jewelry, Enamels, Miniatures, and Bookplates. Illustrated. A. C. McClurg & Co. Per vol., $1 net.

AN ART-CRAFT INDEX TO THE OCTOBER MAGAZINES

PERTINENT ARTICLES

A Course of Study in Manual Training, VII, Cheshire L. Boone, Manual Training Magazine, p. 46.

African Game Trails, Theodore Roosevelt, Scribner's, p. 385.

An Afternoon with Walter Crane, M. Irwin Macdonald, Craftsman, p. 33.

An Artist from Australia: Mr. Arthur Streeton, International Studio, p. 259.

A Reading Journey Through Egypt, II, Alexandria and Cairo, James Henry Breasted, Chautauquan, p. 203.

Art in Interior Decoration, Frank Alvah Parsons, International Studio, p. 18.

Art of Frederick Wilson and Its Message, The: An Appreciation, Minna C. Smith: International Studio, p. xcvii.

Art of Making Silhouettes, The, V. H. Wood, Palette and Bench, p. 8.

Art of Sculptors, The, Saint-Gaudens and Others, James William Pattison, World To-day, p. 1056.

A Stroll Through the Rijks Museum, Charles H. Caffin, Circle, p. 199.

Book as a Basis for Catalogue Making, The, A. L. Hennessey, Printing Art, p. 93.

Choosing the Ornaments for a Modest Home, Alice B. Muzzey, Suburban Life, p. 179.

Comparative Legibility of Types, L. J. Berger, Printing Art, p. 109.

Decorating China with Roses Correctly, Sara Wood-Safford, Ladies' Home Journal, p. 29.

Educative Value of Manual Training, The, S. Horace Williams, Manual Training Magazine, p. 36.

Egyptian Architecture, Lewis F. Pilcher, Chautauquan, p. 227.

Furniture of the Gothic Period, Virginia Robie, House Beautiful, p. 110.

History Lesson and Drawing, The, IV. The Norman Period, W. H. Elgar, Practical Teacher, p. 195.

How the Japanese Revolutionized Our Art, Charles H. Caffin, Circle, p. 198.

Hudson-Fulton Exhibition of American Industrial Arts, The, Florence N. Levy, International Studio, p. xci.

Interesting Modern French Work in Jewelry and Engraved Medals, Craftsman, p. 90.

Italian Art at the Venice International Exhibition, Vittorio Pica, International Studio, p. 268.

John LaFarge, Elisabeth Luther Cary, International Studio, p. lxxxiii.

John LaFarge Collection, The, J. Nilsen Laurvik, International Studio, p. ciii.

Lace-makers of Aspley Guise, The, Katharine Bunner, Craftsman, p. 87.

Materials and Features of the Printed Book, The, John Cotton Dana, Printing Art, p. 97.

Modern British Art, M. Irwin Macdonald, Craftsman, p. 12.

Museo Barracco in Rome, The, M. Louise Nichols, Scribner's, p. 509.

National Society for the Promotion of Industrial Education, The, James Parton Haney, Manual Training Magazine, p. 27.

New Constructive Movement, The, Five Articles by W. H. Winch, M. A., Arthur W. Bull, C. T. Hunt, H. G. Styles, and E. G. Bowe, Practical Teacher, p. 176.

Oriental Rug Values and Prices, Arthur U. Dilley, House Beautiful, p. 101.

Painters and Pictures, XIII, J. L. E. Meissonier, XIV, A. C. Gow, R. A. by W. E. Sparkes, Practical Teacher, p. 189.

Print in Education, Harry Lyman Koopman, Printing Art, p. 89.

Printing as a Factor in Social and Public Affairs, the Editor, Printing Art, p. 117.

Story of Dutch Painting, The, Charles H. Caffin, St. Nicholas, p. 1092.
True Impressionism in Art, The, Birge Harrison, Scribner's, p. 491.
Visiting Manual Training Schools in Europe, I, London, Charles A. Bennett, Manual Training Magazine, p. 1.
Wood-engraving, Frank H. Wellington, Printing Art, p. 113.

ILLUSTRATORS

Abbey, Edwin A., R. A., Harper's, p 750.
Amick, R. W., Century, p. 896.
Arthurs, Stanley M., Scribner's, p. 437.
Ashe, E. M., Scribner's, pp. 457, 458, 459, 461, 462, 463, 465, 467
Birch, Reginald, St. Nicholas, p. 1066.
Blanche, Joseph Emile, International Studio, p. 251.
Booth, Hanson, Circle, pp. 177-179; Delineator, p. 305.
Both, Armand, Scribner's, pp. 485, 487, 488.
Bracker, M. Leone, McClure's, pp. 632, 635, 637, 639.
Brehm, Worth, Scribner's, pp. 421, 423, 424, 425, 427, 428.
Brown, Howard V., Circle, pp. 182, 183.
Burns, M. J., Scribner's, pp. 437-443, 445, 447, 448.
Chambers, C. E., American Magazine, pp. 545, 547, 551.
Chapman, Charles S., American Magazine, pp. 604, 607, 608; Century, p. 845.
Covey, Arthur, McClure's, cover design.
Cox, A. S., Printing Art, p. 113.
Craig, Frank, Delineator, p. 297; Printing Art, p. 115.
Crane, Walter, Craftsman, pp. 33, 35, 36, 37, 38, 40, 41.
Crawford, E. Stetson, Scribner's, cover design.
Crouch, R. Weir, Century, pp. 883, 948, 960.
Denslow, W. W., St. Nicholas, pp. 1081-1084.
Deremeaux, Irma, Century, pp. 878, 880, 882; Ladies' Home Journal, p. 10.
Dillon, C. B., Ladies' Home Journal, p. 93.
Dunn, Harvey T., Century, p. 992.
Elsley, Arthur J., St. Nicholas, p. 1123.
Emmet, Lydia F., St. Nicholas, frontispiece.
Everett, Walter H., Ladies' Home Journal, p. 15.
Fenn, Harry, Century, p. 852.
Fink, Denman, Circle, p. 196; Harper's, pp. 777-781, 783, 784.
Fisher, Harrison, Ladies' Home Journal, p. 19.
Flagg, James Montgomery, American Magazine, pp. 539, 541, 542; Scribner's, p. 468.
Fogarty, Thomas, Delineator, p. 304.
Foster, Will, Harper's, pp. 759, 762.
Goodhue, Bertram G., Century, pp. 873-876.
Green, Elizabeth Shippen, Harper's, pp. 736, 744, 767, 771.
Gruger, F. R., Scribner's, pp. 497-500.
Hambidge, Jay, Century, p. 919; Ladies' Home Journal, p. 9.
Harding, George, McClure's, pp. 588, 589, 591, 593, 597.
Harting, G. W., Circle, pp. 187, 188.
Hokusai, International Studio, p. ciii.

Hoskins, Gayle P., American Magazine, pp. 572, 574, 575, 576; St. Nicholas, pp. 1060, 1061, 1063.
Hunt, Albert, American Magazine, p. 641.
Ingres, J.-A.-D., Century, p. 871.
Ivanowski, Sigismund de, Ladies' Home Journal, p. 11.
Keller, Arthur I., Delineator, p. 301; Ladies' Home Journal, p. 7.
Kirby, Rollin, McClure's, pp. 677-681.
Kleinschmidt, Carl, Delineator, cover design and pp. 260, 261.
LaFarge, John, International Studio, pp. lxxxiv-xc.
Laszlo, P. A., International Studio, p. 311.
Latour, Fritz Bequer de, International Studio, p. 317.
Litle, Arthur, Circle, pp 185, 186; Delineator, p. 299.
McCord, George H., Printing Art, p. 92.
Merrick, Arthur T , St. Nicholas, p. 1071.
Meylan, Paul, Century, p. 869.
Munn, George Frederick, Century, p. 947.
Nelson, G. Patrick, Circle, cover design.
Oberhardt, William, American Magazine, pp. 581, 582, 583, 585, 586, 587; Delineator, p. 309.
Peirson, Alden, Century, cover design.
Poucher, Edward, Delineator, p. 364.
Preston, May Wilson, Century, pp. 924, 925, 926, 927.
Pyle, Howard, Harper's, frontispiece, and p. 682.
Relyea, C. M., St. Nicholas, pp. 1105, 1106.
Reuterdahl, Henry, Outlook, cover design, and p. 169.
Schabelitz, R. F., American Magazine, pp. 650, 653, 655, 657.
Scherres, Alfred, Century, pp. 933, 935, 937, 939, 940, 942, 943, 945.
Schoonover, F. E., Harper's, pp. 667, 671.
Scott, W. J., St. Nicholas, pp. 1114, 1115, 1121, 1122.
Smith, E. Boyd, Printing Art, frontispiece.
Stearns, Fred, House Beautiful, cover decoration.
Steele, Frederick Dorr, Delineator, p. 296.
Stella, Joseph, Century, p. 903.
Stick, Frank, St. Nicholas, p. 1091.
Storer, Florence E., St. Nicholas, pp. 1085, 1086, 1087.
Streeton, Arthur, International Studio, pp. 259-266
Sully, Thomas, Printing Art, p. 116.
Taber, I. W., Outlook, p. 171.
Taylor, F. Walter, Harper's, pp. 722, 724.
Troth, Emma, St. Nicholas, pp. 1072, 1073.
Varian, George, American Magazine, pp. 528, 531, 532, 535, 537.
Wheelan, Albertine Randall, St. Nicholas, pp. 1089, 1096.
Williams, C. D., Ladies' Home Journal, p. 14.
Williams, J. A., Harper's, pp. 788, 792.
Williams, J. Scott, American Magazine, pp. 611, 613, 619.
Winter, Charles A., Century, frontispiece.
Wood-Safford, Sara, Ladies' Home Journal, p. 29.

COLOR PLATES

A Woman of Reggio, Joseph Stella, Century, p. 903.
Costume illustration, Carl Kleinschmidt, Delineator, p. 261.
Cover design, Arthur Covey, McClure's.
Cover design, E. Stetson Crawford, Scribner's.
Cover design, Carl Kleinschmidt, Delineator.
Cover design, G. Patrick Nelson, Circle.
Cover design, S. D. R., St. Nicholas.
Cover design, Henry Reuterdahl, Outlook.
Decorative panel in cover design, Alden Peirson, Century.
Evening on the Lagoon, Venice, George H. McCord, Printing Art, p. 93.
Hay Barges on the Thames, Arthur Streeton, International Studio, p. 263.
Necklace presented to Her Majesty Queen Alexandra by the city of Birmingham. Designed and executed by Arthur J. Gaskin and Mrs. Gaskin, International Studio, p. 303.
Photograph of Squirrel, Suburban Life, cover.
Plate Design, Jetta Ehlers, Keramic Studio, supplement.
Portrait of H. I. M. the German Emperor, P. A. Laszlo, International Studio, p. 311.
Robert Fulton, Thomas Sully, Printing Art, p. 116.
The Dining-room at Offranville, The, Jacques Emile Blanche, International Studio, p. 251.
Drachenfels, The: Moonlight, Fritz Bequer de Latour, International Studio, p. 317.
"Theirs was a spirited encounter upon the beach of Teviot Bay," Howard Pyle, Harper's, frontispiece.
"The Urn of the Year," Charles A. Winter, Century.
"The Walrus and the Polar Bear Rouse Him," E. Boyd Smith, Printing Art, frontispiece.
Title-page, Fashion department, C. B. Dillon, Ladies' Home Journal, p. 93.
"When I Grow Up," W. W. Denslow, St. Nicholas, pp. 1083, 1083.
"Who are we that heaven should make of the old sea a fowling net?" Howard Pyle, Harper's, p. 683.

NOTABLE DESIGNS

Belt and Buckles, Ladies' Home Journal, p. 51.
Borders and Initials, Robert McQuinn, Delineator.
Carved Wood Frieze, International Studio, p. 291.
China Decoration (by members of the Newark Keramic Art Society), Keramic Studio, pp. 118-137.
Christmas Presents in Arts and Crafts, Ladies' Home Journal, p. 45.
Collars, Ties and Cravats, Ladies' Home Journal, pp. 49, 50.
Copperwork, Craftsman, p. 103.
Cover of illuminated trophy and roll of honor, International Studio, p. 299.
Curtains, Delineator, p. 313.
Cut Leather, Ladies' Home Journal, p. 48.
Decorating Tables for Hallowe'en, etc., Ladies' Home Journal, pp. 35, 37.
Decorative headings, Century, pp. 950, 958, 960, 962.
Desk and Book Shelves, Manual Training Magazine, pp. 84, 85.
Dome (over dining table), Manual Training Magazine, pp. 88-90.
Embossed Leather Box, International Studio, p. 289.
Embroidered Panel, International Studio, p. 290.

Embroidered Wash Curtains, Ladies' Home Journal, p. 43.
Enamels on Copper in Silver Frame, International Studio, p. 299.
Filet Lace, Palette and Bench, p. 17.
Fire Screen, Manual Training Magazine, p. 86.
Furniture, International Studio, pp. xci-xciii, cii.
Hand-mirror, International Studio, p. 287.
Illuminated Manuscript, International Studio, p, 292.
Jewelry, International Studio, pp. 286, 287.
Jewelry and Engraved Medals, Craftsman, pp. 91, 93.
Lamps, Craftsman, p. 96.
Lamps and Shades, Ladies' Home Journal, p. 46.
Leather Book-covers, International Studio, pp. 289, 290.
Luster Pottery Plate, International Studio, p. 291.
Marble Panel, International Studio, p. 294
Medals, International Studio, pp. 319, 320.
Mirror Frame, International Studio, p. 290.
Modelled Design for Wall Filling, International Studio, p. 294.
Necklace, International Studio, p. 303.
Needlework for Draperies, Craftsman, pp. 95-97.
Oriental Vases, International Studio, p. civ.
Panels, International Studio, pp. xcvii, 302.
Poster, International Studio, p. 293.
Pottery Panel, International Studio, p. 288.
Screens, Ladies' Home Journal, p. 47.
Silver Sugar Basin, International Studio, p. 286.
Stained Glass, International Studio, pp. xcviii-c.
Tables, Craftsman, pp. 99-102.
Tailpiece, Century, p. 883.
Tiles, International Studio, p. 288.
Wooden Spoon, Manual Training Magazine, p. 87.

THE SCHOOL ARTS GUILD

I WILL TRY TO MAKE **THIS** PIECE of WORK MY BEST

SEPTEMBER CONTEST

AWARDS

First Prize, Book, a packet of "Japanese Birds and Animals," published by The Davis Press, and Badge with gold decoration.

Thomas Carson, VII, Pleasant St. School, Westerly, R. I.

Second Prize, a set of "Old Japanese Designs," published by The Davis Press, and Badge with silver decoration.

Edward M. Ballard, VIII, Irving School, Berwyn, Ill.
Ludolph Grossman, VI, Hawthorne School, Clinton, Ia.
Eva Hertha, VII, 620 Emery St., Longmont, Col.
Clayton C. Shangraw, VII, 4 River View Ave., Danvers, Mass.
*Margaret C. Zoudlick, Easthampton, Mass.

Third Prize, a copy of "Blackboard Drawing," published by The Davis Press, and Badge.

Leona Corbin, III, Easthampton, Mass.
*Helen Gage, VII, 8 So. Chestnut St., Augusta, Me.
Kathryn Gillis, VII, Provincetown, Mass.
George Kosatka, VII, Emerson School, Berwyn, Ill.
Mildred MacDonald, VI, Irving School, Berwyn, Ill.
Dorris Miller, VIII, Ashbourne School, Elkins Park Pa.
Joseph Ozzolek, IV, Haydenville, Mass.
Earl Pitney, V, Emerson School, Berwyn, Ill.
Lucy Smith, V, Maple St. School, W. Newbury, Mass.
*Grace Strong, IX, Easthampton, Mass.

Fourth Prize, the Badge.

Laura Arel, II, White Rock School, Westerly, R. I.
Ruth Ashbaugh, VIII, Ashbourne School, Elkins Park, Pa.
Doretta Bargholer, III, Longfellow School, Clinton, Ia.
Mabel Beaver, II, Collinsville, Ill.
*Eben Crockett, V, Park Ave. School, Westerly, R. I.
Sadie Cross, VIII, 93 Northern Ave., Augusta, Me.
Elizabeth Elliott, Springfield, Ill.
Edward Enos, VII, Provincetown, Mass.
Beatrice Francis, IV, Elm St. School, Westerly, R. I.
*Dorothy Gage, VII, Warsaw, N. Y.
*Sammy Hend, IV, Hawthorne School, Clinton, Ia.
Xanthus Homer, VI, Edge Hill School, Elkins Park, Pa.

*A winner of prizes in some previous contest

Mildred Horner, VII, Ogontz Public School, Elkins Park, Pa.
*Jessie Hume, VII, Warsaw, N. Y.
Deborah Jones, Springfield, Ill.
Marie Ketelbut, VI, Hawthorne School, Clinton, Ia.
*John Langone, VIII, Phillips School, Boston, Mass.
Stanley Marshall, VIII, 93 Maple St., Danvers, Mass.
R. McGowan, V, Hay School, Springfield, Ill.
Emma Meyer, III, Easthampton, Mass.
Inez Oviatt, VIII, 520 Collier St., Longmont, Col.
Thomas Talbot, V, Haydenville, Mass.
Emily Urban, VII, Elkins Park, Pa.
Paul Watz, IV, Pleasant St. School, Westerly, R. I.
Milton ——, V, New Goodwin School, Clyde, Ill.
———, III, Ashbourne School, Elkins Park, Pa.

Special Prize, the Badge.

Mae Broadhead, High School, Elkins Park, Pa.
B. Eunice Lavenne, High School, Alton, Ill.
Walter Newman, High School, Elkins Park, Pa.

Honorable Mention

Joseph Ashworth, Westerly
Josephine Azevedo, Provincetown
Hope Bissland, Brewyn
Paul Brotherson, Clinton
Elma Calef, Danvers
Blanche Carroll, Longmont
Amelia Come, Easthampton
Reeve Cornwall, Clyde
Eleanor Crawford, Warsaw
Bernard Damon, Augusta
Harold Davis, Springfield
Mary Doody, Elkins Park
Marion Edwards, Haydenville
Onias Elwell, Warsaw
U. N. E., Elkins Park
Ruth Fanning, Danvers
Stella Frey, Collinsville
Flora Galbraith, Warsaw
Listie Gardner, Longmont
Florence Gerrish, Berwyn
*Frank Gomena, Westerly
Pauline Gould, Danvers
Viola Gove, Augusta
*Lydia Greenway, Westerly
John Hamilton, Elkins Park
Amanda Hansen, Clinton
Theodore H——, Clinton
Eda Jagdman, Longmont
Helen Johnson, Elkins Park
Ralph Juda, Collinsville
M. J., Springfield
Mabel Long, Collinsville
George Malley, Haydenville
Cora Mayo, Provincetown
Nellie Mayott, Haydenville
Sadie McEwen, Elkins Park
Annie McLaughlin, Augusta
Charlotte Percy, Westerly
Frances Peterson, Berwyn
Stephen Poulsen, Provincetown
Susan Preble, Augusta
Carolyn Rundlett, Danvers
Leon Saunders, Westerly
Clarence Silva, Provincetown
Levi Talbot, Westerly
Raymond Tingley, Alton
Gertrude Wavers, Elkins Park
Frank Whelton, Boston
Elizabeth———, Elkins Park
Morton ——, Clyde

*A winner of honors in some previous contest.

Pupils whose names have appeared in The School Arts Book as having received an award, must place on the face of every sheet submitted thereafter a G, for (Guild) with characters enclosed to indicate the highest award received, and the year it was received, as follows:

These mean, taken in order from left to right, Received First Prize in 1905; Second Prize in 1906; Third Prize in 1907; Fourth Prize in 1906; Mention in 1907. For example, if John Jones receives an Honorable Mention, thereafter he puts M and the year, in a G on the face of his next drawing submitted. If on that drawing he gets a Fourth Prize, upon the next drawing he sends in he must put a 4 and the date, and so on. If he should receive a Mention after having won a Second Prize, he will write 2 and the date on his later drawings, for that is the highest award he has received.

☞Those who have received a prize may be awarded an honorable mention if their latest work is as good as that upon which the award is made, but no other prize unless the latest work is better than that previously submitted.

☞The jury is always glad to find special work included, such as language papers upon subjects appropriate to the month, home work by children of talent, examples of handicraft, etc.

☞Remember to have full name and mailing address written on the back of each sheet. Send the drawings flat.

☞If stamps do not accompany the drawings you send, do not expect to obtain the drawings by writing for them a month later. Drawings not accompanied by return postage are destroyed immediately after the awards are made.

☞A blue cross on a returned drawing means "It might be worse!" A blue star, fair; a red star, good; and two red stars,—well, sheets with two or three are usually the sheets that win prizes and become the property of the Davis Press.

THE NIGHT BEFORE CHRISTMAS
By George Koch

The School Arts Book

AN ILLUSTRATED MONTHLY MAGAZINE for THOSE INTERESTED IN DRAWING *and the* ALLIED ARTS

HENRY TURNER BAILEY
EDITOR

September to June inclusive $1.50 a year, in advance

VOL. IX DECEMBER, 1909 NO. 4

Entered at the Post Office at Worcester, Mass., as second class matter, August 17, 1903

CONTENTS

Ten Great Paintings, V	Henry Turner Bailey
Pottery Craft in School, II	Cheshire L. Boone
Pen Craft in School Work, III	James Hall
A Candlestick and Shade	Susan S. Odlin
Priceless Handwork	Mima C. Doyle
A Brass Candleshade	Maud A. Simpson
A Class Christmas Tree	Elizabeth M. Getz
Annotated Outlines, January, with Illustrations,	Reference Material
The Workshop—Woodworking—Paper Weight	Frank G. Sanford
Weaving—Doll's Muff and Tippet	Katharine F. Steiger
Sewing—German Maiden's Costume	Blanche E. Hyde
Metalry—Calendar Holder	Augustus F. Rose
Editorial: Thoroness; Chrismas Gifts, etc.	Editor
Helpful Correspondence School Arts Guild	The Arts Library
Reliable Advertisements Trade News	

Published by THE DAVIS PRESS, Worcester, Mass.

COPYRIGHT, 1909, BY THE DAVIS PRESS. ALL RIGHTS RESERVED.

PICTORIAL Drawing begins again with the January number. A difficult subject, it will be made easier and more enjoyable for all who lay The School Arts Book to heart. Among the contributors who will help in the teaching of the subject are Miss Elisa Anne Sargent, Prof. Frank Forrest Frederick, Mr. Samuel E. Gideon, Mr. Schuyler Bull, and Miss Mary A. Pearson. Abundant illustration of good work by children, Prize winners in the Guild Contests, will add to the hintfulness of the New Year's Number.

The School Arts Book

Vol. IX DECEMBER, 1909 No. 4

TEN GREAT PAINTINGS

V

THE SISTINE MADONNA

By RAPHAEL SANZIO

AT the Royal Gallery of Dresden in a small room, alone, is the Sistine Madonna. Its setting is an altar-like structure, upon the base of which a quotation from Vasari identifies the picture and gives us his opinion of it: "For the Black Monks of San Sisto in Piacenza, Raphael painted a picture for the high altar, showing Our Lady with St. Sixtus and St. Barbara—truly a work most excellent and rare." For nearly four centuries now, Vasari's opinion has been the verdict of the world.

At first glance the picture seems small—the forms are less than life size—and to eyes educated by the Gran' Duca and the Madonna of the Chair, it appears rather dull in color. Against a background of blue-gray, becoming warmer toward the center of the picture, stands the Virgin. The upper portion of her robe is pink, deepening to red in the shades, over a vest of violet-gray. The lower portion is blue over a skirt of red. The scarf thrown over the shoulder is cream-white. The veil flowing from behind the head is a warm gray. St. Sixtus is clothed in yellow and orange brocade, lined with red, flung over a soft under-garment of ivory white. St. Barbara's sleeves are of yellow and orange changeable silk with blue between the elbow and the shoulder. Her skirt is gray; the mantle is yellow-green. The clouds beneath are of a warm gray. The curtains are dull green, and the green is repeated, with red, in the wings of the cherubs. The larger areas of green, blue, and gray, seem to

give a dominance to the cooler colors; but presently one discovers that the colors are more subdued and the contrasts softer than usual, and that the whole canvas is suffused with the dim green-golden light of a forest glade in September. In consequence the unity of the whole is much greater in the original than in the reproductions. No one would ever think of being satisfied with a circle cut from the upper part of the picture, except in photograph.

Occasionally some critic is pleased to pick flaws in this masterpiece. An American painter, whose works were greater in his own eyes than in the eyes of his contemporaries, used to enjoy saying contemptuously that certain of his acquaintances were in the "Sistine-Madonna stage of art appreciation." Just what he meant by that he never condescended to explain. The picture is by one whom the Blashfields rank "in the art of composition, the greatest master of the modern world;" by one whom Berenson declares to have been "endowed with a visual imagination which has never been rivalled for range, sweep, and sanity;" by one in whose art, according to Symonds, "thought, passion, and emotion, became living melody."

The Sistine Madonna, "the sublimest lyric of the art of Catholicity," in the opinion of Lübke, "is and will continue to be the apex of all religious art." To me, it is just that, the apex of all religious art. It rises out of the realm of the particular and temporal into the realm of the universal and eternal. It embodies in visible loveliness the things that abide; it sets forth in inimitable beauty the attitude of the human spirit towards "the Power not ourselves that makes for righteousness."

Sixtus is the embodiment of hope. A man of mature years, seeing clearly the needs of his fellowmen, and knowing well his own limitations, he looks to the Divine for aid. Raphael has represented him kneeling devoutly at the moment when by

THE SISTINE MADONNA
by
RAPHAEL SANZIO

gesture and voice he is calling the attention of the new born Saviour of the world to the needs of the vast congregation which the drawing of the curtain has just revealed. His attitude is the attitude of the Psalmist. "Our hope is only in thee"; it is the attitude of Peter, "Help, Lord, or we perish."

Is not that the attitude of thoughtful men everywhere to-day? The reformer looks to Him who said, "All ye are brethren"; the teacher of ethics to Him who gave the golden rule; the student to Him who said, "Ye shall know the truth, and the truth shall make you free." The eyes of all who suffer turn involuntarily to the One who invited the weary and heavy laden to come to Him and rest. The hope of mankind for a larger and more abundant life is in God as revealed in the face of Jesus Christ. St. Barbara is the embodiment of love. In the face of love there is no question, no doubt. Love need not even look above. "My beloved is mine and I am his," that is enough. But love must look around: "Behold if God so loved us, we ought also to love one another." The one immediate possible object of affectionate service for St. Barbara is this pair of cherubs who seem to have strayed away from the celestial host in the sky and are lost, in abstraction at least. Love would be of some comfort to somebody at once, for Love hears a voice that says, "Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me." While hope sees the need and looks above for help, love sees the need and looks around for opportunity. Love goes to work, enduring all things, and in women, sometimes never failing even when the task is hopeless.

Raphael, "the supreme assimilator of all and every material that was fitted to the purposes of art," did not despise the traditional symbolism of colors. Sixtus loves, hence his robe has a red lining; over this runs an ordered pattern in yellow and orange, the symbols of thoughtful wisdom and benevolence.

He wishes the good, as he sees it, for all; he will ask divine aid, but there his activity ends. In Barbara's robes the yellow and orange, the wisdom and benevolence, flood together indiscriminately, and over this is flung a mantle of green, the symbol of fruitfulness, of that out-flowing love that does not rest satisfied without manifesting itself constantly in good deeds. "Not every one that saith unto me, Lord, Lord, shall enter into the kingdom, but he that doeth the will of my Father." This involves a degree of self renunciation, hence her skirt is gray. The ideal love is love without weakness; the love that is just, as well as generous, hence Barbara's arm wears blue, the badge of truth and justice.

Mary is faith incarnate. What a face she has! How beautiful! And for delicate suggestion of deep emotion it has but one superior in the whole range of art, namely, that beardless face of the Christ by Leonardo. A blind, unintelligent faith fears nothing, because it knows nothing; an informed faith may have the assurance of certainty, but then it ceases to be faith, having passed over into knowledge. In true faith there lurks forever the question, the uncertainty, the possibility of doubt. That is the secret of the look in Mary's face.

"We have but faith; we cannot know;
For knowledge is of things we see."

There come moments of bitter experience when every human soul exclaims with Tennyson:

"I falter where I firmly trod,
And falling with my weight of cares
Upon the great world's altar stairs
That slope through darkness up to God,

I stretch lame hands of faith, and grope
And gather dust and chaff, and call
To what I feel is Lord of all,
And faintly trust the larger hope."

For the instant of revelation which Raphael has depicted, even Mary, with the living pledge of infinite love in her arms, tastes the bitterness of this cup that the Father presses to the lips of human faith in its every Gethsemane. The prophecy of Simeon is fulfilled, yea, the sword has pierced her own soul also; but her eyes turn not away. Faith would not be faith that could not suffer and endure. Mary's experience has been the experience of the faithful in every age. Her attitude is typical of the attitude our race has maintained towards the Son of Mary, for nineteen hundred years. We question, yet believe; we see the worst, yet trust the best. Men regret the bloody history of Christ's religion, they neglect His church; they will not have this man to reign over them; and yet from their beds of pain they reach out eager hands to touch His seamless dress for healing, and over their dead bodies they would have repeated the august words, "I am the resurrection and the life." Mary is the faith of the world, pondering all these things in its heart, pierced thru with many sorrows, yet with passionate tenderness still holding the Christ of God in its arms.

But after all, the supreme thing in the picture is the Child. Place side by side all the faces of the infant Christ ever painted, and arrange them in the order of physical beauty, of intellectual promise, of spiritual possibility, or of suggestion of the divine, and in every case this face would have to be placed first. Scores of times Raphael had tried to do the impossible, to paint the face of the divine-human child; in this, his last attempt, he succeeded. There is in this face all the deep implying of beautiful infant faces everywhere, but in addition, it carries something of that nature which merited the distinction of being hailed as "chiefest among ten thousand and altogether lovely," and was given the unique honor of being called the only begotten Son of God. It is this child grown to twelve years of age that Hoffman

shows us in the midst of the doctors in the temple, and it is this same child grown to splendid manhood that appears in his Christ and the Rich Young Ruler.

But why that startled look, that look of painful surprise, that look of fear, in this divine little face?

Interpreters of the picture have always said that the curtains were drawn apart that we might have the vision. Undoubtedly that is true; but at the same time, Mary and her son, coming from the glory unspeakable, are given a sudden vision of mankind. This super-human child sees before him not only the kneeling congregation to which Sixtus calls his attention, but the vast multitude behind and beyond it. He sees his own future. He sees Rachel weeping for her children, the first to suffer in His name; the thousands enduring the tortures inflicted by pagan Rome; the millions dying in the religious crusades, wars, and massacres of "Christian history" during fifteen hundred years. What wonder that the child who had been called the bringer of good-will to men, and the Prince of Peace, should be appalled at such a vision, shot through with sudden fear. "He is wounded by our transgressions, and the chastisement of our peace is upon Him."*

As I sat there, in that quiet room in the Royal Gallery, so much alone, gazing at this greatest of religious pictures, I realized as never before the universality of its appeal. Generations of pilgrims from all countries have bowed before it, in silence, in admiration, and in tears. Who of them all has not found by bitter experience, like Sixtus, that his hope is in God alone? Who has not felt with Barbara that love to God must show itself in service to others? Who has not memories of supreme moments

*So far as I know, Dr. William T. Harris, of Washington, was the first to suggest this adequate interpretation of the child's face. Personally, at least, I have to thank him for this insight.

when the faith of Mary was his, and he could exclaim with one of old, "Though he slay me, yet will I trust in him"? And who has not in some open hour shared the vision of this divine child, and realized with crushing certainty that the way to victory is ever the way of the cross?

> "Our little systems have their day,
> They have their day and cease to be,"

but one stubborn belief endures forever in the heart of mankind, the belief that some intimate relation exists between humanity and God. Perhaps some day all the world will see that that relation,—a relation revealed in Christianity, and summed up in the words, Faith, Hope, Love, and Sacrifice,—is as beautiful as Raphael has made it appear in the Sistine Madonna. All the seers of the race justify Raphael in placing behind the manifestation of these four things that abide, the infinite splendors of Heaven.

HENRY TURNER BAILEY
North Scituate, Massachusetts

BETHLEHEM'S silent plains are sleeping,
Through the east the dawn is creeping,
Awaiting earth is still.
Lo! a flood of light appearing,
Lo! the angel hosts are bearing
Tidings of Good Will.

POTTERY CRAFT IN SCHOOL

II

BUILDING PROCESSES

THERE are three distinct methods of working clay into useful articles: (1) By building or modeling with the hands, (2) by throwing ware on the potters' wheel, and (3) by casting in plaster moulds. The first is the primitive and early method beyond which some races have never advanced. The method is called primitive because it is the simplest and the first one employed. Hand-built ware can be very perfect and beautiful and so long as only a small number of pieces is desired the simple process is adequate. But it is too slow for commercial purposes.

The potters' wheel, which in its simplest form consists of a heavy revolving disk propelled usually by the foot, is the machine or tool most characteristic of the craft. A lump of clay stuck fast to the center of the revolving disk is gradually shaped with the fingers into forms which are typical results of the whirling motion of the clay. The wheel is a machine for very skilled hands only and has no place in elementary school work. One can only learn to use it even moderately well by long and persistent practice.

The third method, that of casting in plaster moulds, is a factory practice, developed to facilitate and multiply production. Moulds of plaster of paris are prepared from plaster or clay models of the desired shape. Each mould is made in sections which fit together neatly. When in use it is wrapped with cord to hold the parts together. The interior of the mould is then filled with clay slip.* The plaster being porous gradually absorbs water from the slip next it, leaving a thin coating of less moist,

* A mixture of clay and water having about the consistency of thick cream. The slip is put through a wire screen to take out lumps and impurities which would mar the casting.

less liquid clay all over the inside of the mould.* See illustration below. In a few minutes the coating has become thick enough and the surplus slip is poured out. The mould with the coating of clay is set aside to dry for some ten or twelve hours in a warm room. When released, the several sections of the mould come away, leaving a semi-dry, thin piece of clay ware formed by the coating of clay. With plenty of moulds a workman can produce in a few hours many perfect pieces, all exactly alike.

A mould taken apart. Illustration from the Year-Book of the Council of Supervisors of Manual Arts, 1905.

The Process for Children.—Building by hand is the only process children can use to advantage. It is the natural way to handle clay, it requires few tools other than the fingers, and does not demand the aquisition of an artificial technique. The fingers are tools with which one becomes easily acquainted.

*See Pottery for High Schools—Rose. School Arts Book, November, 1904, for a good description of mould working.

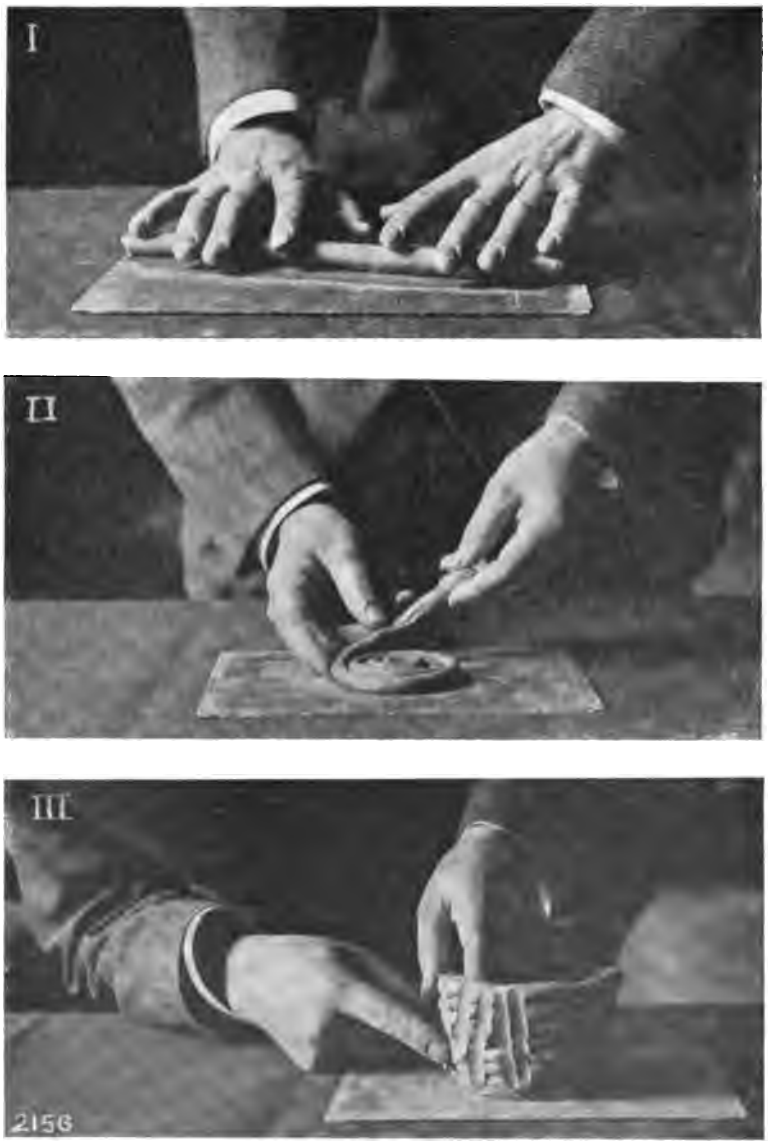
Perhaps the best illustration one can find of built ware is that made by the Indians.* Their method, which is also the best one for children, is briefly as follows: (a) Rolls of clay, the thickness of one's finger, are prepared by rolling a mass of clay back and forth on some hard level surface, Fig. I. The fingers of each hand are somewhat spread, to cover as much of the roll as possible and so regulate its roundness and diameter. The roll is made as long as possible quickly and with the fewest motions. Handling dries the clay a good deal, it becomes less plastic and does not adhere. It requires some practice to make long, symmetrical rolls of equal diameter.

(b). To make the bottom of a pot, one of these rolls is coiled in spiral form, making a round tile of the required size, Fig. II. Adjacent coils are worked together so the tile becomes one solid mass. It is then turned over, smoothed on the remaining surface, and is then ready for the sides or wall of the vessel.

(c). A roll is laid around the edge, a second roll on top of the first and so on, building up the inclosing wall of the vessel. Every two or three rings the rolls are carefully stuck together, Fig. III, both inside and out, and if necessary the rim levelled up before adding the next ring. One has to work carefully in building up the sides. The rolls must be securely fastened and worked together, and once in place should be left alone. As the height increases the rolls become less stable.

The form of the vessel is controlled during the building by laying the rolls either toward the inside or outside of the wall, to spread or contract the diameter of the vessel at that point. In the hands of children, built pottery always tends to "spread out" as it grows in height and there is need to allow for this or the piece will become shapeless.

*For full discussion of Indian pottery, decoration and processes, see the 20th Annual Report of the Bureau of Ethnology, U. S. National Museum, Washington, D. C.



The processes involved in pottery building. I. The roll. II The coil III. The sides.

The processes involved in pottery building. IV. Pressing bits of clay into place. V. Smoothing the edge to secure uniform thickness.

This Indian method of working, simplified here for use of children, has very many possibilities. One can make rectangular forms as easily as round ones, and the work proceeds rapidly. The one essential to success, aside from careful, orderly instruction, is that the clay must be in proper condition to be rolled, without crumbling (because it is not moist enough) and without sticking (because too moist). There is a medium condition which is just right.

Experienced pupils can use another method of building for certain small things, and obtain good results. This other procedure is one of working with small lumps of clay. The bottoms of vases or tiles are made by kneading these lumps together in systematic fashion and so securing a homogeneous body of clay. Walls and sides of pottery are constructed of small lumps too, laid in rows as one uses coils, each piece being securely stuck to the ones next to and below it. The thumb and finger of one hand does the building, while the other hand controls the thickness of the walls, Figs. IV and V. This is an excellent way to make square or rectangular vessels, and large things like the greater flowerpots and garden jars.

Whatever the way of working may be, the operations should be clean cut and definite. When a piece of clay is put on it should be placed for a purpose, stuck fast, and not worried about. The building should be done evenly, regularly, so that the form may be symmetrical.

Finishing.—Even the best of hand work requires much retouching to make it good. Each piece of pottery must be smoothed and scraped with a modeling tool. The surface must be made even and regular in curvature. Clay is in the best condition for this finishing when it is "leather hard," that is, when it has lost enough moisture to make it stiff and tough but

not dry. Dry clay does not work well and presents an unsympathetic surface.

Tiles.—The first pottery problem will be a tile, because that is the easiest piece and the beginning of all problems. The tile must be built up: it cannot be cut as a slice from a large lump of clay. Such a slice would vary in density and would warp, shrink unequally, and probably become ruined in drying and burning. Working the clay, kneading it with the fingers all over the tile tends to prevent warping and distortion. Tiles six inches square by one-half inch thick are of good workable size, and offer an adequate area for decoration. They should be made as level and smooth as possible, should have good corners and edges. It is not always necessary to use rulers and dividers but there are legitimate instruments wherever precision is desired. The whole value of modeling is lost if one is content with lumpy, irregular, crooked work. Such productions are often styled "primitive" and praised as typical results of the efforts of young children. Handwork aims toward one result among others—precision of workmanship,—and this is one stage on the road toward beauty. If a square tile is intended it should be made as square and perfect as the ability of the pupil permits.

Every tile should be made for a definite purpose—to hold a teapot, flowerpot, or for a paper-weight. Pupils like this incentive. And each tile should have some decoration, preferably incised in the clay, this being the most direct kind. See illustrations, Plate VI.

From the building of tiles it is but a single step to add a rim to the edge and one has a saucer or shallow tray. A higher rim turns the saucer into a bowl or vase. The transition from tile to vase may be so gradual that the pupil will never notice just when he began to make pottery.

VI. Examples of tiles and candlesticks by fourth and fifth grade pupils, Montclair, N. J.

VII. Examples of bowls, flowerpots, and trays made by fourth grade pupils, Montclair, New Jersey.

CYLINDRICAL WARE

Of cylindrical vessels, which comprise the majority of pottery forms, the following may be mentioned as excellent problems, in about the order in which they would be taken up in class.

(a) Candle holders. See illustrations, Plate VI.

(b) Bowls. The form and choice of very simple decoration are essential. See illustrations, Plate VII.

(c) Flowerpots. A little careful designing will produce some beautiful results, rather more satisfactory than the com-

mercial article. Proportion and form are more important than decoration, which must be very reserved. See illustrations, Plate VII.

(d) Vases for flowers. Flowers are very characteristic and one does not willingly use the same sort of receptacle for nasturtiums as for asters or tulips, so there is latitude in design here.

(e) Jars with covers, such as those used for tea, candies, tobacco, crackers, etc. This kind of pottery furnishes fine technical problems, representing the highest development of fifth grade work. The design involved is definite and interesting. The cover is merely a small, round tile large enough to cover the mouth of the jar. On this tile is built a second layer, just the size to fit into the jar opening. This cover is built upside down on a square of paper. When finished it is detached, so the reverse side may be finished with a knob or other modeled form.

Very little decoration is necessary on cylindrical pottery. The form itself should be sufficient.

RECTANGULAR WARE

(f) Ink-wells. See illustrations, Plate VIII.

(g) Flowerpots or boxes. Rectangular ware offers technical exercises of interest. The square flower-pot is built up like any other piece but one finds care necessary to keep the sides perpendicular and the corners square. But best of all are the decorative possibilities of these pots. Each side presents a rectangular surface like a tile for ornament. If the class has had good training and has learned to apply incised ornament neatly, this flower-pot is very much worth while. See illustrations, Plate IX.

VIII. Examples of ink-wells made by fifth grade pupils, Montclair, N. J.

IX. Examples of rectangular flowerpots or boxes. Work of fourth and fifth grade pupils, Montclair, N. J.

CHOICE OF EXERCISES

The suggestions offered are merely types. Many other problems exist and have been tried, which are equally good. One's choice is governed, first, by technique. Only those things should be made in clay which can properly be executed in that material and by children. Fourth and fifth grade children cannot make teacups—these are factory products. Next, one is wise to select problems involving clear-cut decorative requirements which are sufficiently elementary. Craft work and design are so interwoven that neither can exist in health alone. Yet design for the pupil of ten or eleven years of age must be presented in words of one syllable, so the choice of problems is limited. For this reason one avoids discussion of design as to handles, spouts, and other subtle features. The best problems are those which tax the pupil's hand skill a little, appeal to his sense of utilitarian worth, and so lead him to prize the work of his hands.*

CHESHIRE L. BOONE

Montclair, New Jersey

---

*These additional references will be of use.

Keramic Studio for 1903-04 Syracuse, N. Y.

This magazine contained a series of papers by Professor C. F. Binns, entitled "Clay in the Studio." Ceramic processes adapted to amateurs and studio crafts work are described in detail.

Report of United States National Museum, 1899, pp. 511-521.

A paper entitled "An Early West Virginia Pottery," giving an interesting description of early American pottery methods.

Pottery in the Public Schools—Mann.

Manual Training Magazine, January, 1907, chiefly interesting for the illustrations and design.

PEN CRAFT IN SCHOOL WORK

ARTICLE III

THERE is no more appropriate field for beautiful writing and lettering than that of Christmas and New Year cards. Genuine and personal seems the message which the sender himself has wrought, and incomparably more significant to the giver and to the recipient than the stock store product, however attractive it may be. Hand-lettered cards may range from the simplest greeting to a beautiful page of prose or poetry with illuminated initials or rich borders.

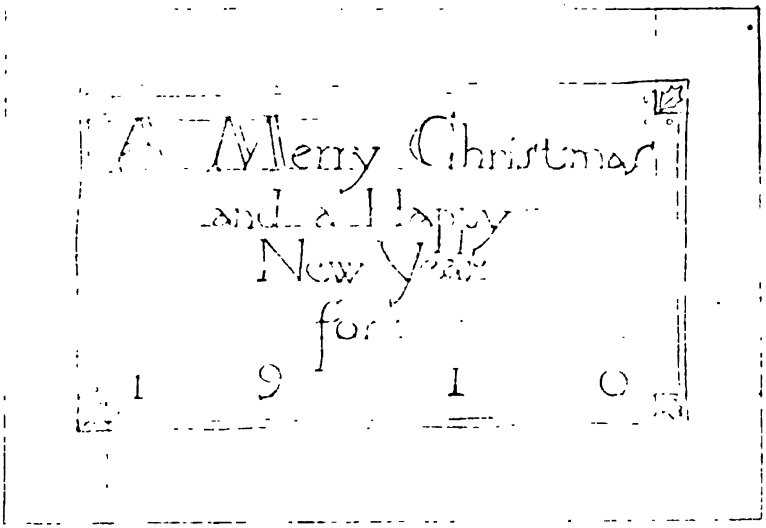
The two illustrations here shown offer examples of very simple types which are practical for grammar pupils. To make them very easy, they have been done in pencil, which is simpler to manage than the pen and has a beauty of its own, generally ignored in such work. The pen, of course, may be used for the cards if the teacher prefers to do so.

The choice of material is important. A cream or white paper, rather smooth but not shiny, may be nicely mounted on a warm gray cardboard, or the lettering may be done on white cardboard of the right surface. The pencil should be of medium grade, not soft enough to smudge or hard enough to dig into the paper.

In conjunction with pencil lettering, one or more colored pencils may be used for initials, etc. Another method is to fill in initials and ornament with delicate washes of water-color. In any case the gray pencil lines should remain dominant.

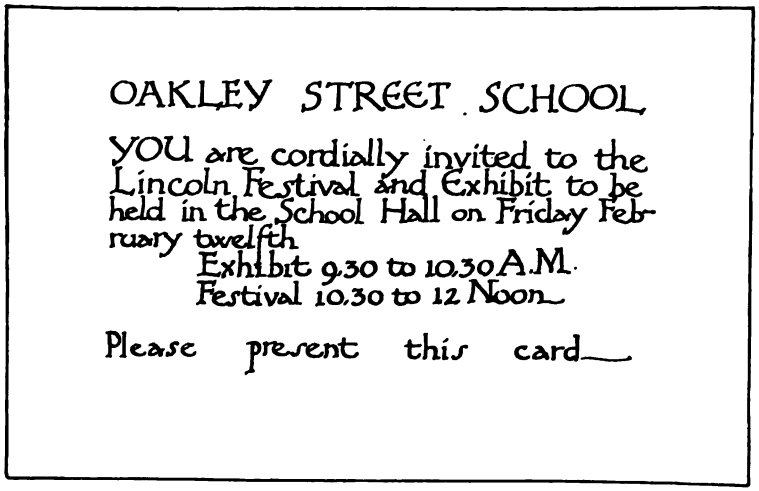
In the first illustration, the space between the two margin lines might be washed in a gray-green, leaving the leaf forms uncolored. The A, M, and C could be filled with red, and also the small circles (the holly berries) at the corners. In the illustration of the New Year card, the initial might be filled with delicate red or blue, while the oak leaves could be made a gray-green.

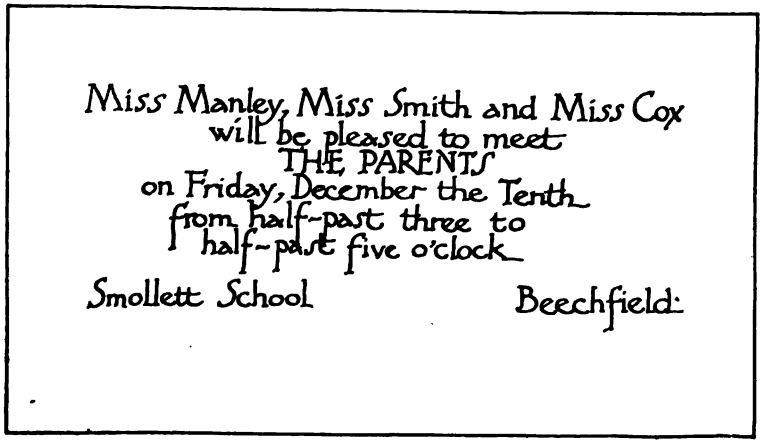
It should be noticed that the style of lettering used is that given in the Outlines (pp. 43 and 44) in the September number of this magazine.



"TO BE HONEST, TO BE KIND — to earn a little, and to spend a little less. Above all to keep friends with himself. Here is a task for a man."

Stevenson


OAKLEY STREET SCHOOL
YOU are cordially invited to the Lincoln Festival and Exhibit to be held in the School Hall on Friday February twelfth
Exhibit 9.30 to 10.30 A.M.
Festival 10.30 to 12 Noon
Please present this card


Miss Manley, Miss Smith and Miss Cox will be pleased to meet THE PARENTS on Friday, December the Tenth from half-past three to half-past five o'clock
Smollett School
Beechfield

In such problems as these, the pupil should first letter an experimental card for practice. Here, if mistakes of spacing are made they should be corrected.

On both the practice and the final card, light margin lines and guide lines (for the bases of the letters) should be ruled very carefully with a hard pencil. These lines should be allowed to remain, and on the final sheet all use of the eraser for any purpose is forbidden.

As in pen work treated of in the two previous articles, good craftsmanship here includes direct but well controlled lines. The pencil makes clean and even gray lines when properly sharpened and when used fearlessly but with reserve.

Illustrations 3 and 4 show types of formal invitations. Lettering such, makes a good class problem when the number of invitations required is not sufficient to call for printing or engraving. If each member of a class can undertake from two to five cards a goodly total is soon produced. All that has previously been stated regarding margins, massing and the general treatment of a page applies to the planning of these cards.

Many are the needs which arise in school for formal lettering, such as labels for envelopes and boxes, dance orders, programs, menus, place cards, etc. There is no art craft in more frequent demand than that of lettering or formal writing.

If a class is rightly taught some pupils are sure to develop real style as well as facility. These pupils may be depended upon to meet occasional special demands for posters and the like.

They also may be asked sometimes to plan and lay out problems to be undertaken by the class along lines such as are suggested in this article.

JAMES HALL
Ethical Culture School
New York

A CANDLESTICK AND SHADE

PERFORATING sheet metal has something attractive about it that appeals to children. There is a certain fascination about seeing the design rise in relief as the background is forced down into the wood and the unceasing fall of the mallet is evidence enough of their eagerness to see a part or the whole of their work completed.

The simplicity of tools required and the ease with which it may be done brings this problem within the possibilities of the average child above the fifth grade.

One inch less than one-half of a 14 circle plus 5-16 at each end for fastening is the size of our shade.

On 14″ by 9″ drawing paper construct a line A-B 14″ long, one-half inch from top. Mark the center C. Now, with a radius equal to AC, and C as center, draw one-half of a circle minus one inch. Connect the end of this arc with the center, C. Inside this draw another arc with a radius of 6 3-8″. This makes the width of the lower edge of the frame.

For the inner circle for the opening at the top have a radius of 2 5-8″. Outside of this draw another arc with 3 1-8″ radius.

Setting the compass at 6 3-4″, divide the outside arc into three parts. Connect these points with the center and you have the size of the required panel.

The design must be of the first importance. It can be made simple or elaborate according to the ability of the maker. The tree and wild carrot motifs each work up beautifully.

The design planned and properly spaced within the panels, we are now ready to apply it to the metal. Either copper or brass may be used.

Thoroly clean a piece of No. 28 brass 14″ by 8″ with powdered pumice stone moistened slightly with water. If curved or bent, flatten by placing between wood and striking squarely several times with a wooden mallet.

Cover the entire surface with a thin, even coating of paraffine by heating the metal.

It may now be tacked upon a piece of soft pine. This should always be done after applying the paraffine as heating the board is liable to warp it. By means of an awl punch holes in metal for tacks 1 1-2 apart, one-fourth inch in from upper and lower edges.

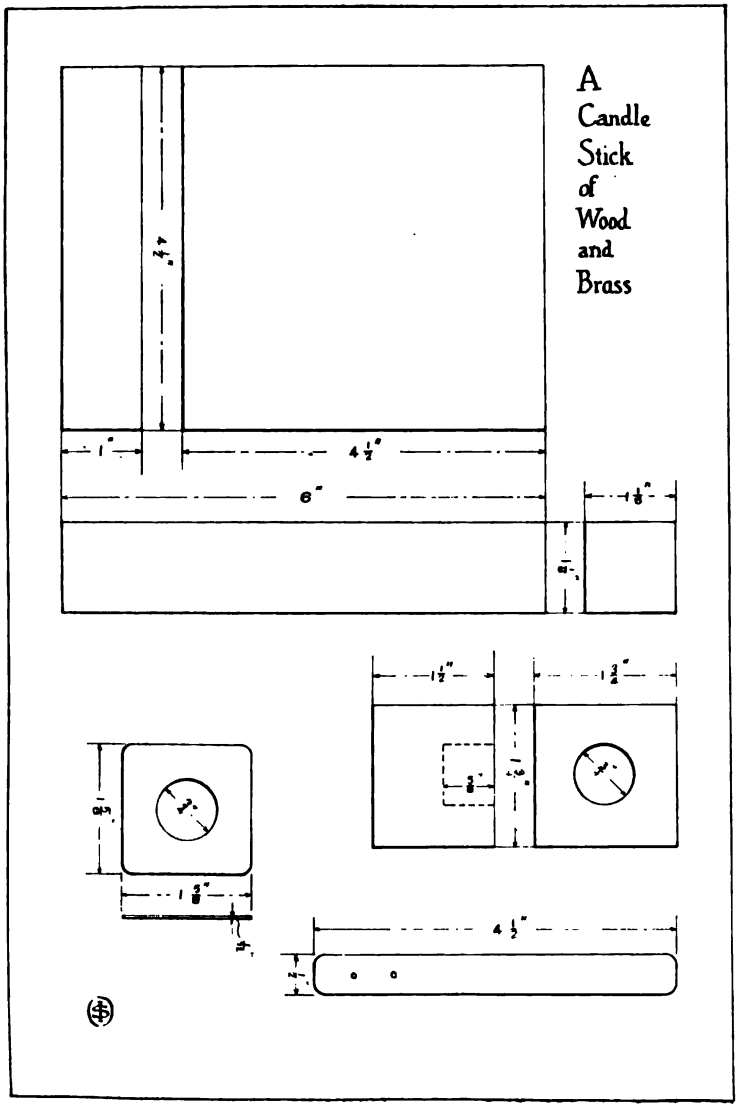
Begin tacking to board at center hole on upper edge and then the one beneath it on lower edge. Proceed to right and then left, always tacking the one directly beneath until the entire piece is fastened firmly to the board. This somewhat lessens the danger of buckling as the metal must be flat on the board.

By means of thumb-tacks fasten the design to the board along the upper edge so that the design falls well within the row of tacks. Transfer the design to the wax surface by going over lightly all lines with a hard pencil.

Remove paper and by means of an awl held firmly near the point, scratch the lines on the wax into the metal. The metal may now be warmed slightly and the paraffine wiped off.

In the absence of awls the perforating-tool may be made by the children, from a wire nail. Place a six-penny wire nail in a vise between two pieces of soft wood and file to a point. File on the forward stroke, taking a long, steady movement. This will heat the steel and take out the temper. Replace this by heating the tool to a red heat and then plunge immediately into cold water.

The whole outline and background should now be perforated with holes of nearly uniform size placed very close together. The working of the metal will in most cases cause a slight buckling, thus giving an added interest. In working, the tool should be inclined slightly away from you. Always work toward your design. This tends to force your design in higher relief.


A
Candle
Stick
of
Wood
and
Brass
4 ½"
1"
4 ½"
6"
1⅛"
1½"
1¾"
4 ½"

The perforating finished, remove the metal from the board and cut the brass along the curve, allowing the 5-16″ at each end for fastening. Always cut metal near the joint of the shears. This will not only prove the easier way but it will insure a more even edge.

File the edges and finish with emery paper. Shape the shade with the hands as much as possible and then beat to an even curve with a metal hammer. By means of pliers turn the edges over evenly at either end in opposite directions until they can be made to hook. Hammer together and the shade is completed.

Because of the lack of the necessary tools the blocks for the candlestick were obtained already cut to given size and put together by the children in the following fashion.

The pedestal was fastened to the center of the base by placing glue between the parts and then countersinking a screw on under side. A hole 3-4″ by 1″ was bored in the center of the top block with a 3-4″ augur. This block was then firmly fastened to the pedestal with a screw at the base of this opening.

The edges were then well rounded with a wood file and sandpapered. It was then stained and waxed.

A piece of No. 22 brass, 1 5-8" square, with a 3-4" circular opening serves as a protection to the top.* It should be filed nicely and all corners rounded. This is fastened to the block with brass escutcheon pins. The holes must be partially drilled to receive these or otherwise the wood will be liable to split.

The brass prongs which support the shade are also cut from No. 22 brass. Brass upholstering tacks are used to fasten these to the block.

SUSAN I. ODLIN

Weaver School

Dayton, Ohio

*To protect the wood completely, a lining for the socket which receives the candle may be made from thin brass. The base of the socket may be lined with a circle of brass not quite 3-4 of an inch in diameter,—just the right size to crowd down and hold the side-protecting ring in place. Of course, this should be adjusted before the face plate is fastened down.

PRICELESS HANDWORK

PRICELESS, first because corn-husks cost nothing and can be provided by the pupils themselves in rural districts, and secondly because the accomplishment of the work is invaluable in the training of little hands.

There is often an abundance of beautiful material furnished to the city teacher, but in many rural schools, such material is difficult to secure. And yet beautiful work is done under the direction of thoughtful and ingenious teachers even in country schools. Here is a suggestion.

Procure a quantity of corn-husks sufficient for the entire school; then lay them aside until thoroly dry, as they shrink in the process of drying. Tear the husks which seem strongest and least irregular into strips about 1-2 an inch wide.

Braid the strips, and fasten the ends with narrow strips of husks or with cotton thread.

From this braid make a circular mat, beginning at the center and sewing around and around until the mat is about 8 inches in diameter. This is serviceable beneath a vase of flowers or under a hot dish.

The braiding is easily taught to little children and the circular sewing is not difficult.

Another article which proves interesting is a miniature bushel basket or a long basket with an arched handle which may be used as a receptacle for mother's spools and thimble, or for Easter eggs, or May flowers, in the spring, or for fruit in the fall.

The little basket is started in the same manner as the mat. When the required size for the bottom is reached, the husk circle is laid upón the bottom of a tumbler or some such object, and shaped as it is sewed for about two rows. After that the shaping article is discarded and the sewing continued around and around until the body is completed. Then the handles are fastened on. Now, if the artisan desires, the little corn-husk basket may be dipped in bright colored dye, or painted to suit the taste.

A Mexican hat for one's own or sister's doll; seats and backs of doll furniture; a wide, low, bowl-shaped basket similar to a Chinese rice-bowl; a simple covering for a bottle to hold flowers, like those sold at the florist's, all these and many other problems prove to be of unfailing interest and delight to the children.

MIMA C. DOYLE
Omaha, Nebraska

MAY Yule's sweet peace
Abide with you
And bless your home
The whole year through.

A BRASS CANDLESHADE

IT was well toward the last of April and the ardor with which the boys and girls had started their tasks in the fall had begun to slacken. Even the drawing period, though still eagerly welcomed, seemed not to be producing adequate results. Without doubt that interest which calls for work needed to be aroused by the introduction of a new element. To awaken such interest in the eighth and ninth grades, the children were shown some brass candleshades with designs relieved by pierced backgrounds. They were told that we were going to make designs for such shades and that if good ones were produced we would work them up in metal.

Directions were then given for planning the shade on paper. Two sizes were given, a small one for which the brass would cost five cents, and a larger one costing a little more, which would be suitable for either a candle or electric light bulb. Each child made the size he preferred. The plan for the smaller shade was as follows. Draw a circle with a radius of one and a half inches. With same center draw another with a radius of four and five-eighths inches. Divide into eighths. Cut around both circles and up one radius. Fold on the lines. Now bring the ends together and lap them until the right spread is obtained. After trying, we found that five sides would make our shade the size we desired. Next we had to plan for laps and allow for turning at top and bottom so as to have no sharp edges. For this we drew a new plan, added a quarter inch all around the outside of the shade, and mitred the corners where edges were to be turned under. The larger shade differed only in having the first circle one inch in radius, making the top smaller for the electric bulb, and the larger circle five and one-half inches in radius.

We were now ready for the design. The children were recommended to use rather large, simple forms. As the tulip was in season and was fitting in form for such design many used it as a motive. On each of the five sides of the shade at

top and bottom were drawn quarter inch margins and at the sides one-eighth inch margins. Inside these margins was placed the design. Then the pattern was cut out, laps and all.

The number thirty-four soft brass that we used was sold in the stores at forty cents a yard. It was fourteen inches wide and a quarter of a yard cut two small shades. The children bought the brass themselves, some getting the quarter yard and selling half to others. The working in metal was not compulsory

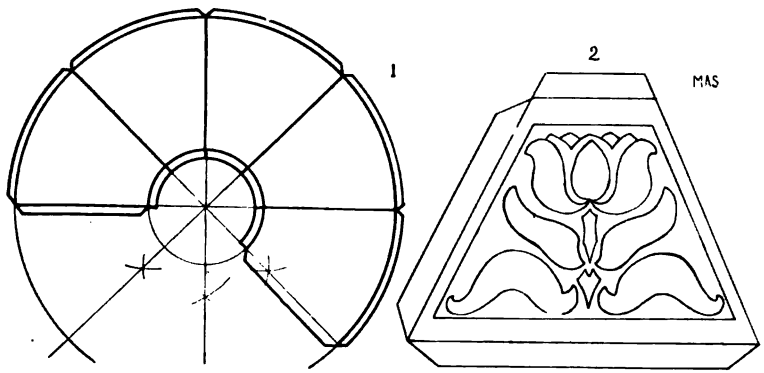


Fig. 1. Geometric layout for a five-sided shade. Fig. 2. One side of a four-sided shade, with tulip design ready for punching.

but the idea of using tools, and making something worth while that would last, was so appealing that there were few who did not do so. The children were told to bring awls, new ones or old ones sharpened to a fine point, and boards large enough to fasten the brass to. These same boards caused much good natured amusement for, with the exception of one or two carpenter-made with cleated backs, they were of many shapes and sizes, from the round beveled edged one, evidently from the pantry,

to the one and a half by four foot plank which the quiet boy in the back seat so dexterously handled.

The brass was fastened to the board with thumb-tacks. Then the pattern, with design up, was fastened in the same manner to the brass, care being taken to put the tacks through the laps which would turn under. Now we were ready to outline our design by piercing around it with the awl. Holding the awl nearly vertical in the right hand and guiding the point with the left, we practised a bit on the outer edge of our brass until we could control our hands so as to make holes nearly all the same size. We found that the smaller holes, made with less pressure, were better suited to the size of our model than larger ones. Thru the paper pattern we pierced the margins and outline of the design for all five sides. Then we drew with lead pencil on the brass around our pattern and removed it carefully, to be used again, perhaps.

The work was now very simple, only to fill in the background around the design. We worked from the margins to the design, punching the holes irregularly but at about an even distance apart, and upon finishing our background we found that design and margins were raised above it. We next cut our pattern out of the brass with an ordinary pair of scissors and proceeded to turn the edges under. We used the sharp edge of our board for this, laying our pattern so that the line it was to bend on would be exactly true with the edge of the board. Then we bent the lap over the edge pressing with our fingers against it. This made a crease to bend on and we folded the lap under and pressed it hard to flatten it, using the round handle of the awl for this purpose. Only one of the laps was turned where the shade was to join. The other was merely bent a little to fit under the folded one. With the awl, holes for the fasteners to be put thru were punched at the two ends, and

A four-sided brass candleshade completed, with bead fringe, by an eighth grade pupil, Butler School, Portland, Me.

along the bottom for the fringe. The shade was bent with the hands into shape and fastened with Dennison's No. 5 double pronged paper fasteners.

The shades were polished at home, the children using silver polish, then soaking the powder off with warm water, and drying with a soft cloth. This gave a soft finish like Roman gold and suited the bead fringe better than a more brilliant polish would have done. In some cases the shades were lacquered, after being polished, with lacquer bought at the paint stores. This is a transparent liquid like varnish and was used to prevent tarnishing. The fringe, if used, was next fastened on with the fasteners, the two ends were sewed together at a corner, and our shade was completed.

It may take about six three-quarter lessons to finish the shade after the design is ready, but the enthusiasm of the teachers and scholars shortens the time. After the background piercing began, the pupils were allowed to work before school, for the work is not noisy, and occasionally permission to work during school time was granted as a reward for correct finished work, this serving as an incentive to some of the more indifferent task doers.

MAUD A. SIMPSON

Portland, Maine

IT is a day of joy and charity. May God make you very rich in both.

Phillips Brooks

A CLASS CHRISTMAS TREE

FIG 1

IN looking back over the year's work a teacher can usually recall some feature of it which marked the high tide of enthusiasm. Such spontaneous and wholehearted effort in any well directed line is worth much more to the children than many times the same amount of work when interest is lacking. With us during the past year the class Christmas tree took the prominent place in our first and second grades.

Plans for this work were distributed the first of December. Teachers and children talked about the best kind of tree to decorate for Christmas. It was decided that it ought to have low, drooping and spreading branches and, of course, should be green. A careful study was made of all the evergreens the school grounds and nearby woods afforded. Growth was studied with special reference to the suitability of the trees for Christmas decorations. Drawings were made either directly from the trees or from memory, Fig. 1.

After the children had succeeded in expressing some of the characteristics of growth, a full sized sheet of bogus paper was fastened to the wall and on it a large tree was drawn with green chalk. In the first grades the teachers had to render more assistance than in the second grades. Some teachers allowed the child who had made the best small drawing to draw the tree on the large paper, but where the real Christmas spirit prevailed all had a share in the work. It was not unusual for a teacher to hold a tiny child up to the paper while its chubby hand grasped the chalk and added a few strokes of green to the picture tree. When this drawing had been made to the entire satisfaction of the class if not to the teacher, the joy of decorating it began in real earnest.

Lessons in folding, drawing, cutting and pasting followed each other in quick succession. One day was devoted to drawing and cutting out candles, another to folding and cutting stars, then balls, crescents, lanterns, pans, etc., each in turn being made the subject for a lesson. The best were selected for the tree; always the teacher tried to have as many children as possible represented by one thing or another. This work continued up to Christmas time. Lastly white chalk was used to represent strings of popcorn festooned on the tree. In a few cases isinglass or gold dust found its way onto the drawing, but not even a look of disapproval was shown by teacher or principal, as the wish was to keep uppermost the feeling of pleasure in the work. How much more valuable at this particular stage in the child's development was the interest which actuated his bringing the shiny stuff than that he should have heard from his teacher that tinsel or gold dust was inappropriate in the drawing!

The tree proved to be a strong rival to other Christmas interests. Some of the children seemed almost sorry to part with it even for the holidays.

On their return to school in January the teachers explained to the children that they would draw from toys and at each lesson one drawing would be cut out and fastened to the tree.

Before Christmas every one had been allowed to take part as freely as possible in the work but after the holidays there were some restrictions. Children drew from toys for the sake of the toy drawing and as a special reward for the quality of the work, the improvement or some other reason so as not to let the honors fall only on a few, the drawing was placed on the tree.

The presence of the tree and each day the possibility of being the one on whom the honor might fall served as an incentive to such careful object (memory) drawing as we have seldom seen.

There was never any lack of suitable models for drawing; children vied with each other for the pleasure of bringing toys; dolls, horns, chairs, wagons, etc., were always forthcoming for the lessons.

In many ways the Christmas spirit was manifested in this work. Often a tree was made by the class and sent to the home of a sick classmate who had been unable to share in the pleasure of making it. Usually such suggestions came from the children rather than from the teacher.

Our greatest difficulty was experienced when the end of January came, in giving up the drawings of trees. It appeared for awhile that Washington's birthday, Easter and other holidays would be overlooked in the interest which was still shown in the trees. Because the children were really enthusiastic, it was not always easy to persuade the teachers that it was wise to put away these drawings in order to give other subjects their due attention and so that they might return to the Christmas work another year with renewed interest.

Never was the drawing supervisor so many times invited during one month by children, teachers, and principals to "come out and see our work." Always these invitations were gladly accepted as there was no doubt what pleasure awaited her in beholding so many proud and eager children—eager to show their work and to hear the words of approval which could be so honestly bestowed.

Finally the trees were put away with more or less ceremony. In a few cases special exercises were held but at the close of schools in June many of these picture trees found their way, at the earnest request of the children, to a conspicuous place on the schoolroom walls for the closing day exercises.

ELIZABETH M. GETZ
Director of Drawing
Atlanta, Georgia

ANNOTATED OUTLINES

JANUARY

SO far as I know the psychologists have not thrown any new light on our problem, Pictorial Drawing, during the past year. We must still hold to our free illustrative sketching, to drawing from objects in silhouette, to the study of objects for foreshortening and convergence; in a word, the order of our going we must stand by another year at least. But I am sure that the greatest need of public school pupils to-day, "a motive for productive effort," to use Mr. George H. Martin's fine phrase, is the thing they need most in pictorial drawing. "Why are you not drawing?" I once asked a bright boy. "Why should I?" he retorted. "To show how the object before you looks," I replied. "Look at it," said he; "you can tell better that way than by any drawing I can make."

A motive for productive effort. A reason for pictorial drawing that satisfies, and inspires the child to draw. I wonder if that can come out of any publication, ever, even The School Arts Book! Must it not come out of local conditions, local interests, local events, under the magic touch of the local teacher? The longer I live the less faith I have in courses of study. *Live,* and study, of course; that is the whole of it in a sentence. Oh, if we were only wise enough to accept the invitation of Froebel, "Come, let us live with our children!" Then when occasion arose for drawing anything, we would teach them to draw that thing and to draw it well. But just now schools are supposed to exist to make "occasions" arise! These "occasions," made to order, the children must be forced to take advantage of, for their future well being. Under the circumstances, therefore, it seems best to suggest the following outline of study for January, 1910.

PRIMARY

Pictorial drawing during the first three grades, and for the first three months, will follow a plan which demands increasing

attention to the object itself, and increasing power to visualize the object:

Gr.	JANUARY	FEBRUARY	MARCH
1	Christmas and Holiday experiences	Midwinter games and sports.	Signs of the coming of spring.
2	Christmas gifts. Gaily colored toys. Calendars.	Winter occupations and utensils. St. Valentine.	Pets and poultry. Mother Goose.
3	Christmas gifts. Objects of use in sports and games.	Objects involved in stories of Washington, Lincoln, et al.	Objects involved in myths and legends, including animals.

The language work, the number, and the historical and biographical stories, may be so co-ordinated with the drawing, and the drawing so co-ordinated with them, that all the school work will move on happily together, in harmony with the season.

FIRST YEAR. Illustrate happy Christmas and holiday experiences.

Discuss these experiences with the children, and help them to image clearly the objects involved in the illustration: the tree, the hanging stocking stuffed with toys, some of the individual toys, whatever seems most likely to be so vivid a memory that the child can draw it. The Christmas tree with its gifts, Fig. 1, by Leona Corbin of Easthampton, Mass., is an unusually successful bit of work. It has the naïve combination of the realistic and the conventional which is seen at its best in the

fourteenth and early fifteenth century work of the Italians. Other holiday experiences, outdoor and indoor, will furnish excellent subjects. But not all children will achieve such results as those shown in Plate II, by Joel Young, Elmira, N. Y. Such expressive drawings, so carefully drawn, are ideal for the grade.

Plate II. Christmas games; four pages from a booklet by Joel Young, I, Elmira, N. Y.

SECOND YEAR. (U) Draw favorite toys received as Christmas gifts.

Have these brought to school and exhibited. Let each pupil draw his own, or, if he has none, one that he would like to own. Let each pupil use such colors and such paper as his toy seems to demand. The toys shown in Plate III, were drawn by pupils of this grade who won prizes in the contests of last year. The originals are in colored pencil, and show thoughtful drawing.

THIRD YEAR. Draw objects of use in winter sports.

The objects should be present, placed where each child can have a good view of one. Such objects as articles of apparel, sleds, skates, snow shoes,

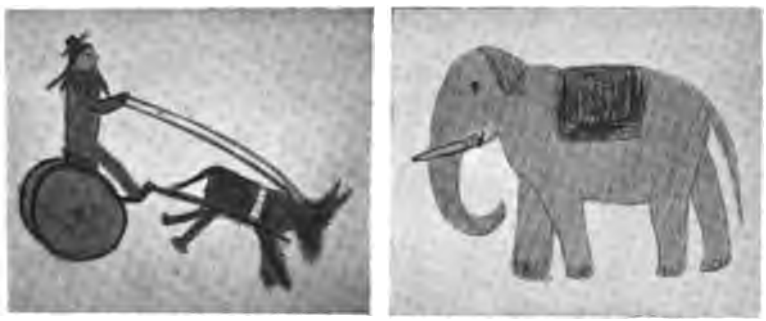


Plate III. (a) Mechanical toy, by Leo McIncrow, II, Utica, N. Y. (b) Toy elephant, Marguerite Leavitt, II, Augusta, Me.

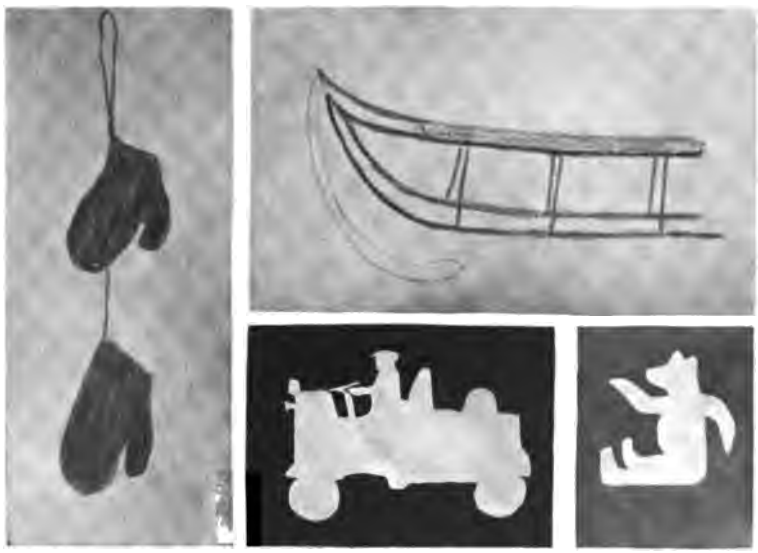


Plate IV. (a) Mittens, drawn from the object by D. Wolcott, I, Utica, N. Y. (b) Sled, drawn from the object by Mary A. Parker, II, East Pepperell, Mass. (c) Cutting from Christmas toy with additions from imagination, by Walter Cottingham, II, Augusta, Me.

etc., are recommended. The drawings in Plate IV, are good examples of work appropriate to the grade.

Another sort of work well adapted to third grade pupils is shown in the lower part of the plate. This is paper cutting from Christmas toys. Sometimes a touch of imagination, as in the addition of the man, gives additional interest and a suggestion of life.

A novel application of the paper cutting comes from Berwyn, Ill.,—a calendar pad for the month of January. A second form is shown herewith, Plate V, making use of a paper cutting from Southbridge, Mass. Such work might be done in a second or third grade. If care is exercised in the selection of colored papers for the mounts, and tinted papers (almost white) for the cuttings, and colored pencils for the lettering, a tasteful result may be secured from any ordinarily bright pupil. The ruling of the vertical and horizontal lines is good practice. If spacing is too difficult, draw the parallels and cut the paper afterwards.

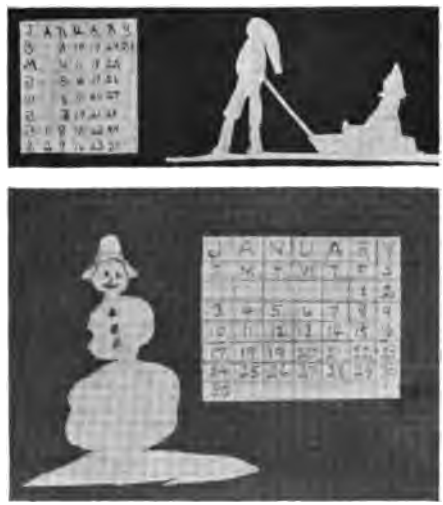


Plate V. Calendars made by second grade children. (a) Marion Lewis, Berwyn, Ill. (b) Decoration by Jennie Loufgren, Southbridge, Mass.

GRAMMAR

The doing of things children like may be carried too far. Some things they ought to learn to do whether they like to or not. When, however, the thing they ought to do can be made so attractive that they like to do it, so attractive that they will hold themselves to doing their level best for the sake of securing a fine result, teachers should be as happy as children. Judging by the increasingly good results which have been coming to

me year after year in the monthly contests, the Pictorial Drawing Booklet is a problem of the right sort. Never before have I seen such good work and so much good work from each pupil in model and object drawing as came to me through the mails last spring. January, February and March, 1910, will be given to pictorial drawing, the outcome of which in each grade should be a well made booklet, with colored cover, frontispiece in color, title page, pages of text and plates of illustration. The order of steps in producing these will be outlined in detail, each month. This month in each grade the collection of information and examples, and the making of the first sketches for the illustrations will occupy the time devoted to drawing.

FOURTH YEAR. Make a study of the Silhouette as a form of pictorial representation.

Figure VI.

Consult dictionaries, encyclopædias, etc., and work out answers to the following questions: What is a silhouette? What is the origin of the name? Who first used this kind of representation? What nation has produced the most famous pictures of this kind? When? When were silhouette portraits the fashion in America? What use is made of silhouettes to-day?

Collect illustrations of such uses, historic and modern; trace the ancient, clip the recent.

Show by drawings in silhouette from objects, what constitutes (a) an unintelligible view, (b) a characteristic and descriptive view of an object.

Write the text on scrap paper and correct it. Work it into the best possible form according to the Language standards of this grade.

Figure VI shows the difference between an unintelligible view of an object, and an intelligible or descriptive view.

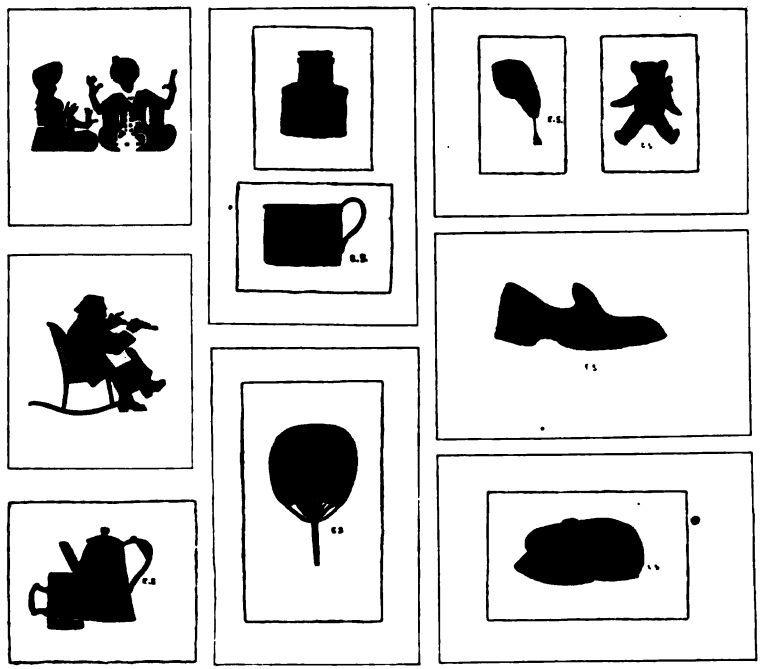


Plate VII.

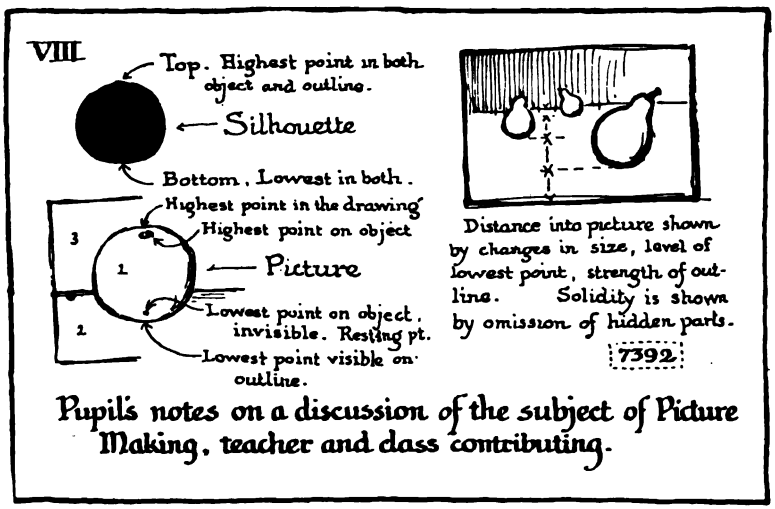
Some of the best work last year came from teachers who required classified work. For example, from the Training School connected with the Normal at Maryville, Mo., came a booklet called "Shadows" by Elfrida Linville, eight years of age. This booklet had four chapters: Pots and Pans, Cleaning Day, Good Things to Eat, and In Toyland. Another booklet, "Modes of Travel," by K. E. Roper, fourteen years old, had as its first illustration a man on horseback, and as its last, a flying machine. Another by E. Clifton Shaw, Grade IV, Easthampton, Mass., contained clipped silhouettes of men playing musical instruments, and should have been filled with such instruments. In Plate VII, some of the best clippings and drawings are reproduced. The clippings are from the books already mentioned. The drawings are from a booklet by Everil Simmons, Grade IV, Westerly, R. I.

FIFTH YEAR. (U) Make a study of the elements of the Picture.

Gather information and illustrations concerning the following points:

What is the difference between a silhouette of an object and an ordinary picture of it? Give illustrations.

What three elements are always present within the frame lines of a picture? Give illustration showing clearly, 1, object, 2, ground, and 3, background.


VIII
Top. Highest point in both object and outline.
Silhouette
Bottom. Lowest in both.
Highest point in the drawing
Highest point on object
Picture
Lowest point on object, invisible. Resting pt.
Lowest point visible on outline.
3
1
2
Distance into picture shown by changes in size, level of lowest point, strength of outline. Solidity is shown by omission of hidden parts.
7392
Pupil's notes on a discussion of the subject of Picture Making, teacher and class contributing.

In the silhouette of a ball the highest and lowest points appear in the outline. How is it in the case of the picture? Illustrate.

How is "distance into the picture" represented in an outline drawing? Illustrate.

How is "solidity" expressed in an outline drawing? Illustrate.

The simplest possible answers to these questions are to be found in Figure VIII.

Pages from last year's booklets are reproduced in Plate IX. The upper pages are from a booklet by Frank O'Neil, Haydenville, Mass. The lower left page is by Carl Shattuck, Easthampton, Mass., (who was a little nipping

with his paper, and too frugal in margins). The beets are anonymous (more's the pity), and the last, showing the effect of distance in changing apparent level, is by Gladys C. Holden, Southbridge, Mass.

Plate IX.

SIXTH YEAR. Make a study of Foreshortening.

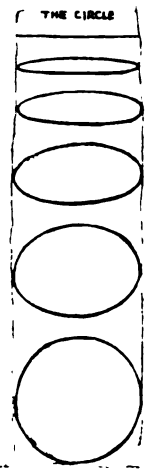
Gather information and illustrations concerning the following points:

What is the apparent shape of a circle when seen obliquely?

What effect is produced on the apparent shape of a circle by changes in level?

Foreshortening
"Tis a greater mystery in the art of painting to foreshorten any part, than to draw it out."
We have been searching for good examples of correct foreshortening of circles.
This one is not so-

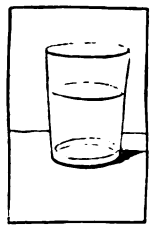
rect in the small ellipses. We found that many years ago nobody knew how to draw foreshortened circles correctly. We have been trying to learn. We have drawn the oranges and the half oranges, the apple and half apples, saucer, cup, and will soon try a group. The hardest thing for me at first was to draw the table line in the right place, for I did not know where to put it so as to make the objects look as if they were resting on something. The apples were easy to draw all but



the seed pockets and the seeds. At last our teacher let some of the boys omit them.

We drew circles turned in different ways to look like a straight line, and ellipses of different widths. We found out that the circle would look all these different ways if its level was changed too, so that you had to look down on it.

We are going to try a glass of water next so that we can see the top, the top of the water, and the bottom of the glass all at once.



These is a tracing of my fourth drawing of the glass. I found it hard to draw the ellipses. The right ways. We all forgot about the thickness of the glass at first and Mr. Macomber, our supervisor of drawing, brought in a big wooden bowl to draw so that we could see the thickness of the sides easily. At first we all drew it wrong but at last we saw how to do it because Mr. Macomber drew it so many times on the blackboard.

We hunted in the advertisements for

Plate X.

Of two circles, the same size, one six inches below the level of the eye, and the other a foot below, which would appear the wider ellipse?

How is thickness of edge represented, for example, in a flowerpot?

The pages shown in Plate X are from several sources. They are composites. Clara Clark, Belleville, Michigan, contributed a part of the text, and one of the drawings; Marian Wetmore, Bristol, Conn., contributed some of the text, and Mary Voigt, Easthampton, Mass., another drawing. The drawing of the apples came without the name of the little artist. The illustration on the first page is typical of the many clippings, to illustrate the principles of pictorial drawing, which the children find in the advertising pages of magazines. Well filled, well spaced, well balanced pages are the ideal. If the material is first well prepared, written on scrap paper and corrected, then reproduced in the booklet, such results are within the reach of all.

SEVENTH YEAR. (U) Make a study of Convergence, in its simpler forms.

Gather information and illustrations concerning the following points:

If a circle seen obliquely appears an ellipse, a square seen obliquely appears what shape?

If a change in distance from the eye means a change in the apparent size of an object, ought there to be any difference in the apparent length of the nearer and farther edges of the desk next in front of you?

Take a piece of rather stiff paper, 4 x 6 inches, and draw upon it a 2 1-2 inch square, one edge being 3-4 inch from one end of the paper. Cut three sides of this square so that it may be folded upon its fourth side, as shown in Figure XI. Place the sheet in the end of a book, as indicated, and stand it far back on the desk, and directly in front, so that the square opening appears its true shape.

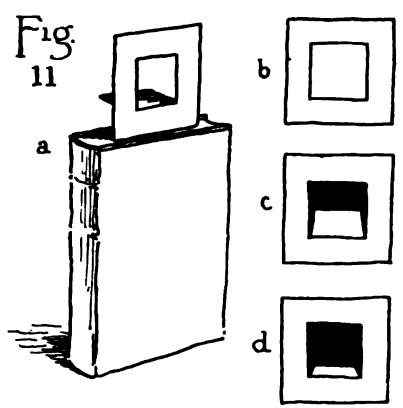
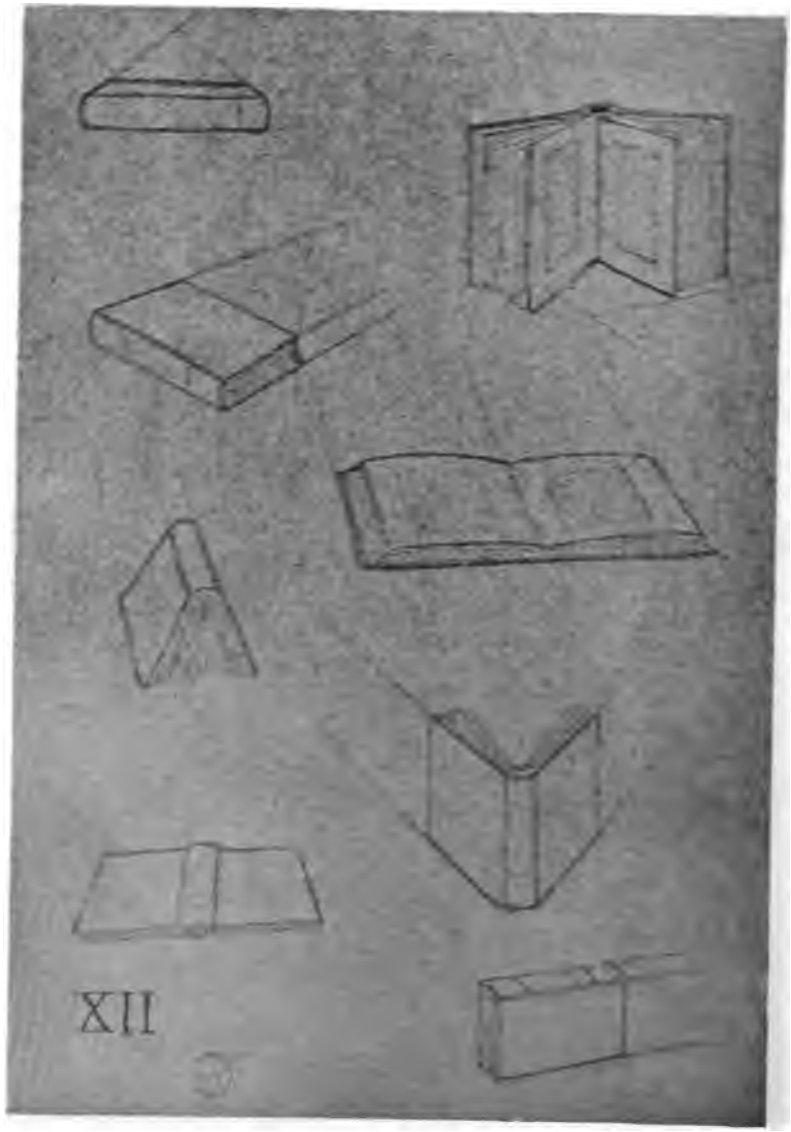


Fig. 11

Make a sketch of the paper with the square door closed, b; partly open, c; and opened at right angles, d.


XII

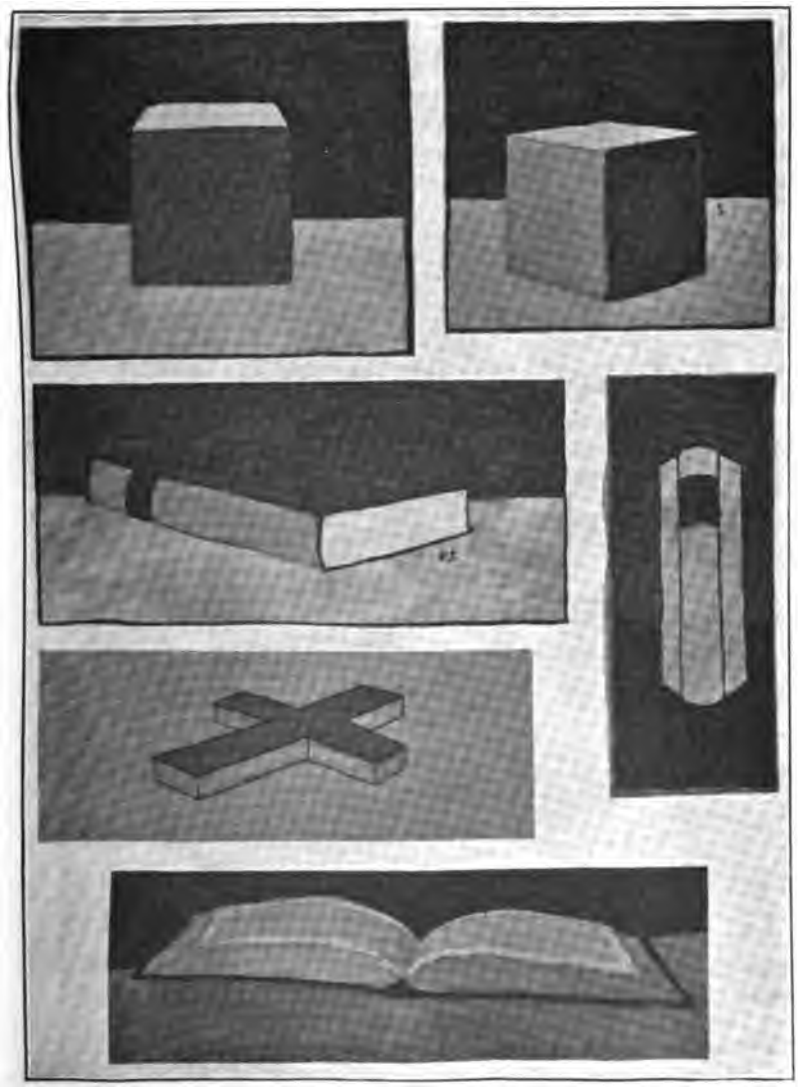
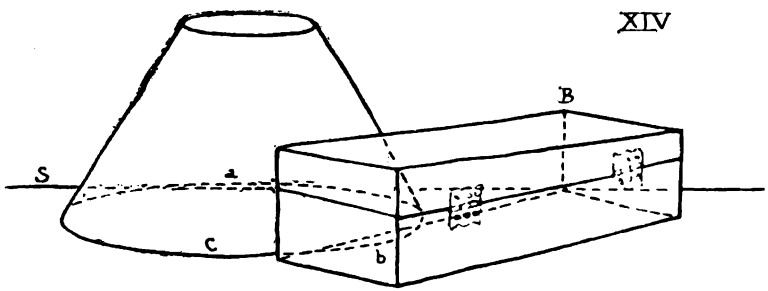


Plate XIII. Rectilinear objects drawn by seventh grade pupils.

Make sketches of rectilinear objects. Such objects are bounded by three sets of parallel edges. Place a rectilinear object so that only two sets are visible; so that three sets are visible, one set apparently converging; so that three sets are visible, two sets apparently converging. Make sketches to illustrate these. Could you place the object so that all three sets would apparently converge? The page reproduced as Plate XII is from a booklet on Convergence by William E. Owens, Grade VII, Westerly, R. I., which received a Second Prize last spring. Such sketches as these show good teaching and a hopeful condition of things pictorially! The drawings which make up Plate XIII came from booklets receiving a first, a second, or a third prize last spring. The first and third are by Pearl Stockton, Bristol, Conn.; the second and last by Frances Funck, Bristol, Conn.; the standing book by Miriam Warren, Marengo, Ill.; and the cross by F. Erwyn Horn, Bristol, Pa. They were all drawn in pencil and finished in water color. Better work could hardly be expected from seventh grade pupils

EIGHTH YEAR. Make a study of Aids and Tests in Pictorial Drawing.

XIV



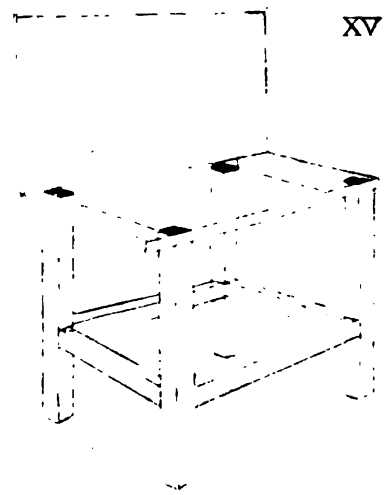
Gather information and illustrations concerning the following points:

The importance of knowing the positions of invisible edges; to help in locating visible parts; to insure room for the whole object in a given space; to test interrelations of parts.

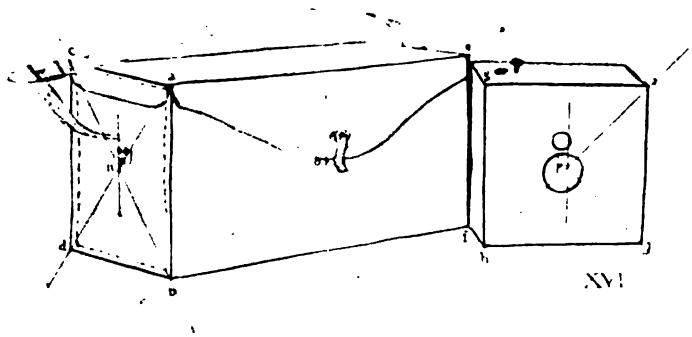
The importance of axes in the drawing of cylindrical and conical objects; the constancy of the perpendicular relation.

The aid afforded by diagonals in locating the apparent center of a rectilinear face, and of details related to the axes of objects.

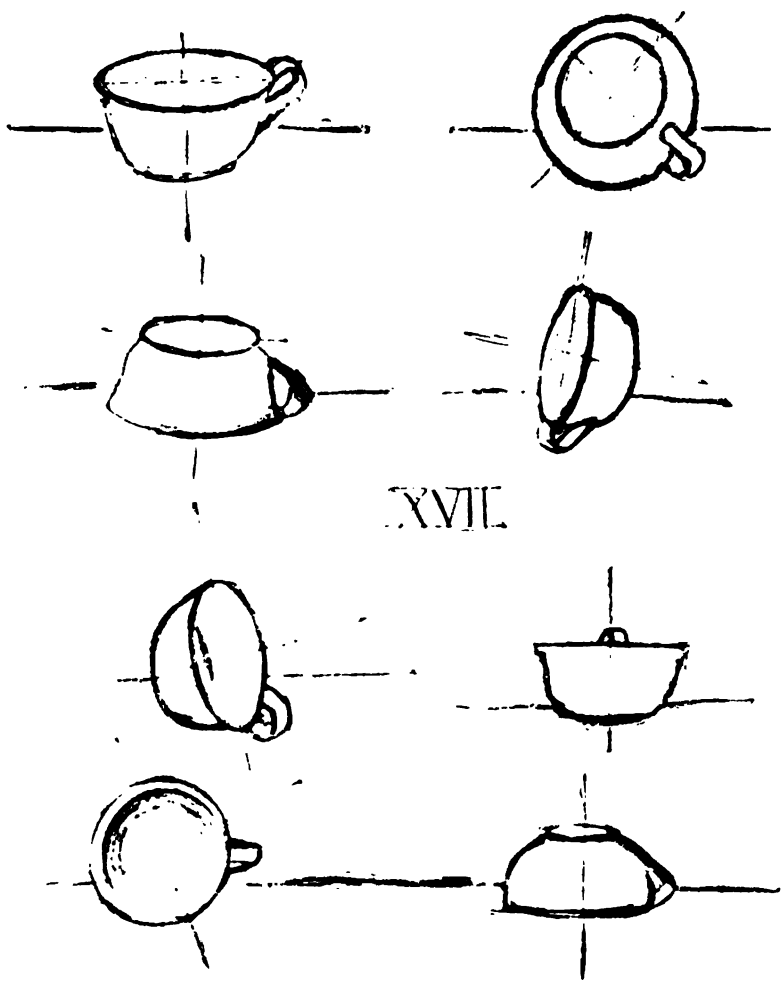
The illustrations on pages 374 to 376 are from the work of eighth grade children.



In XIV the dotted lines have been added to indicate the invisible edges. Had the pupil thought of these he would not have represented two objects occupying the same portion of space as at a and b. In XV, by means of an extension of the invisible edges of the legs they have been brought to the surface of the seat, that their relative positions may be seen. This reveals a rather crazy construction! A thought of the tops of these legs would have greatly aided the child in making the drawing. In XVI diagonals have been added to show how greatly they would have helped in locating handle, lock, and lens. Plate XVII reproduces a set of sketches from a tin dipper, illustrating the



constant relation between the axis of the object and the axes of its ellipses in various views. These sketches were made by Samuel Cohen, Grade VII, Phillips School, Boston. Eight sketches like these afford greater discipline


XVII.

of the paying sort, than a single drawing eight times as complex as any one of them. Repeated observation, repeated well-informed expression, these will give skill in drawing common objects correctly.

In all these grammar grades, the materials collected this month,—clipped illustrations, notes on talks by the teacher, sketches from objects, original brief essays on the topics suggested—will be used next month in beginning the booklets.

H. T. B.

HIGH SCHOOL

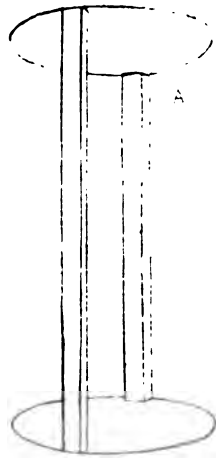
FREEHAND DIVISION

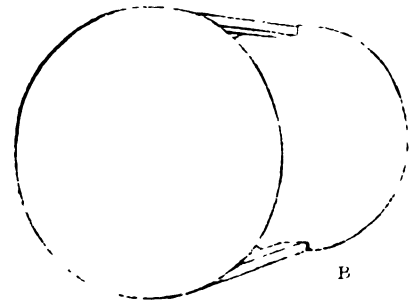
Last month was devoted to some experiments in class work for decorations in anticipation of the holidays. Serious attention

was also given to the fundamentals of perspective, reviews of principles previously encountered in the lower grades and now reapplied in convincing problems together with careful planning of areas in the pictures worked out. The month of January,

practically clear of holidays and unproductive as to nature material, offers us our best period of the school year, perhaps, for intensive study of solid principles of Representation.

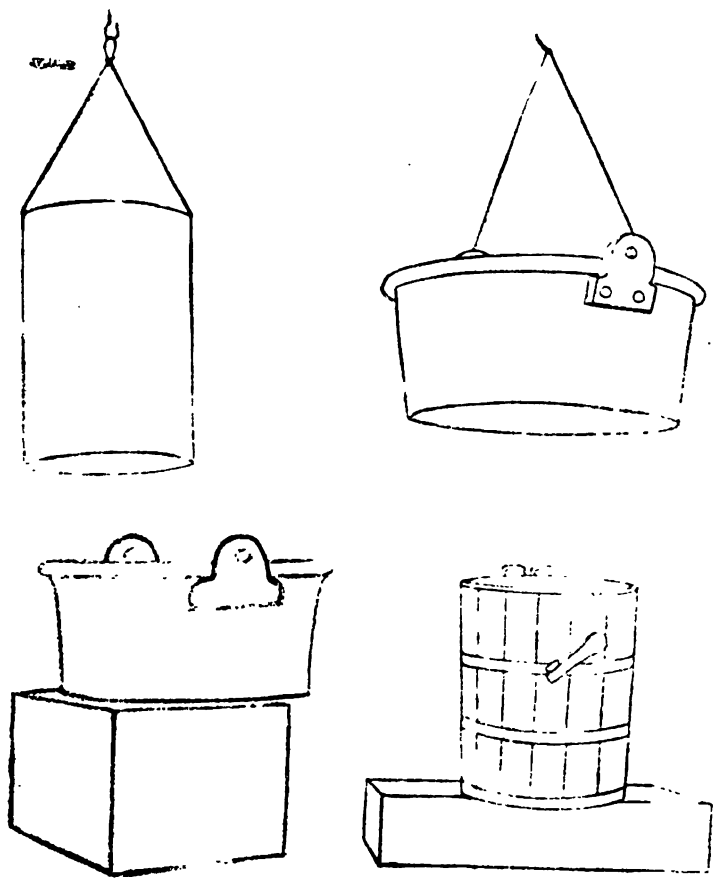
The problems of road, track, boxes and houses considered in December should be continued in any modified ways that may present themselves. The principles they illustrate should be immediately applied to drawings of all the common but interest-





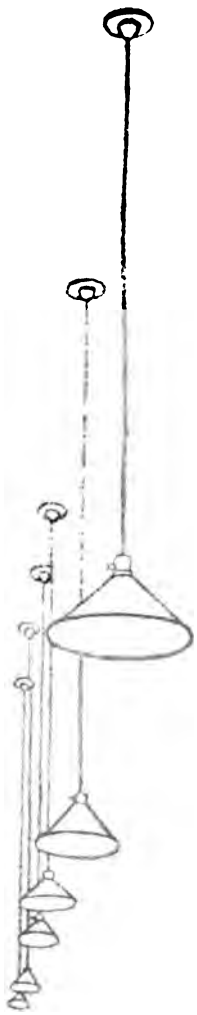
ing objects available. There is too much dependence upon Japanese pottery in school drawing and not enough practice from homely, everyday articles of which every pupil could furnish several.

Practice in drawing the cylinder in any position, which for a few beginners in the high school may seem to be superfluous, is to the majority most essential. The two drawings, Figs. A and B, show a helpful device for intelligent teaching of this object. It consists merely of two large cardboard discs separated by two strips of wood. Of a size about two feet long this makes visible some



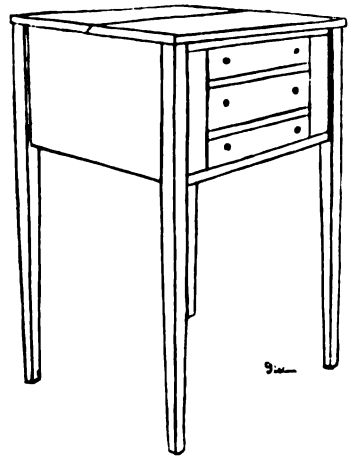
Simple first term outline drawings based on cylinder and ellipse.

facts, otherwise puzzling, about this type form. By hanging up this object clear of the wall by a cord attached at varying points on its frame, quick sketches of oblique cylinders at any angle may be obtained.



The horizon level should be always considered in these drawings and drawn lightly as a help on the paper, even though it is not to remain.

The idea of reference material to illustrate current work is too valuable to be lost sight of during any of the work. With the multitude of pictures available in our advertisements of cylindrical forms, abundant examples can be brought in for discussion. Not infrequently errors will be seen in the work of draftsmen who should know better.



The application of the principles of the cylinder above or below the eye to imaginative scenes is a valuable test of knowledge. Towers showing conical roofs and two or three circular bands at different levels may be composed with simple landscape material. Water tanks on city roofs and end views of locomotives are inducements to offer to clever boyhood.

The perspective rendering of working drawings is so important a feature of Representation that it

is unfortunate to find it widely neglected. Even tho there be no shop in a school for the making of actual articles, yet the perspective rendering of them from working drawings should be earnestly practised, with the aid of Mr. Mathewson's book.

The difficulty of keeping the interest in drawing from objects is one of the reasons for its neglect and the lack of thoroness so apparent in many schools. There seems to be no substitute for earnest work and constant effort in this, if results are to be obtained, any more than in Latin or Mathematics.

HAROLD HAVEN BROWN
Stuyvesant High School
New York City

MECHANICAL DIVISION

Copyright reserved by the Taylor-Holden Company.

The Square. Make a study of the square, obtaining definition; area of square; diagonal of square; relation of side of square

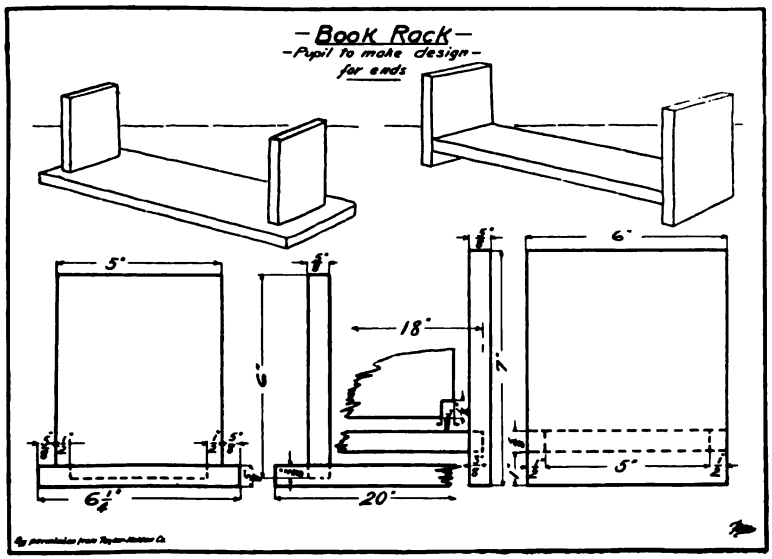


Figure XXIII.

to the diagonal; geometrical construction from given side or diagonal; construction using T-square and triangles.

Plate VII. Problems in drawing the square.

1. On any line not parallel to the T-square as a side, construct geometrically a square having an area of 6.25 square inches.

2. On any diagonal not parallel with the T-square, construct geometrically a square with sides 2 1-4″ long.

Figure XXIV.

Using T-quare and triangles construct:--

3. A square having a diagonal 2 1-2″ long, lower side parallel with T-square.

4. A square having an area of three-fourths of the square in problem 3, the sides of the square to be at 45 degrees to the T-square.

5. Two squares, one within the other. The area of the inner square is 2.25 square inches, which is one-third the area of the outer square. The squares are placed with the sides at 30 and 60 degrees to the T-square.

6. Two squares, one within the other. The diagonal of the inner square is two-thirds the length of the side of the outer square. The area of the outer

square is 9 square inches. Place with the lower sides of squares at 15 degrees to the T-square.

Plate VIII. Make top and front views developed surfaces and perspective sketch of a cube, faces of which are 2″ square.

Plate IX. Rectangular prism or grooved block. (See Notes for Mechanical Drawing, page 5.) Make working drawings and perspective sketch.

Plate X. Design plate. Book Rack. Make working drawings and perspective sketch. Trace and make blueprints for use in shop. Figure XXIII shows two forms of construction and Figure XXIV illustrates several solutions of the problem of designing the ends.

FRANK E. MATHEWSON

Technical High School
Cleveland, Ohio

THE WORKSHOP

WOODWORKING

PIG PAPER WEIGHT

EMERSON, in his wonderful essay on Art says, "A dog, drawn by a master, or a litter of pigs, satisfies, and is a reality not less than the frescoes of Angelo."

Passing through the Field Museum in Chicago, I noticed, near the main entrance, an admirable Roman weight in form of a swine, so admirable in its modelling, so full of character that the above lines at once occurred to me.

Perhaps a year later I worked out from the suggestion there received, the model which is here given. Although not to be classed with the Roman work, I think my pig still has enough of the character of the animal to prove an interesting model.

If the wood used is oak, the greater part of the cutting should be done with a backsaw, finishing with knife, file and sandpaper.

If soft wood is used, all of the cutting may be done with a knife and the finishing with sandpaper. Brace and bit must, of course, be used for boring holes for the lead.

No amount of drawing will show exactly how all the cuts are made, especially around ears and snout, but from the drawings given, I think that anyone, used to reading plans, will be able to figure out the smaller cuts.

This problem can be dictated to a 6th or 7th grade class as a whittling exercise in soft pine, or 8th or 9th grade boys can work it out in oak from the plans as an extra model.

After the block is trued up, the holes are located and bored, before any wood is cut away. This is done because of possible splitting or breaking through. Then the drawing is placed on all six sides. It is a good plan to black in with pencil or charcoal those parts which are to be cut away. They are so done in the plans.

Referring to the isometric Figure 8, saw out 1-1-1-1; 2-2-2-2; 3-3, etc. Then by the aid of lines on top and beneath, Figs. 1-5, the snout and ears are made with two cuts on each side. This is, of course, accurate work and excellent practice with the saw. Another saw-cut makes the mouth, Fig. 3. The back, and all sharp edges may be rounded down with the file, and a few well directed cuts with the knife indicate the forms of legs and tail.

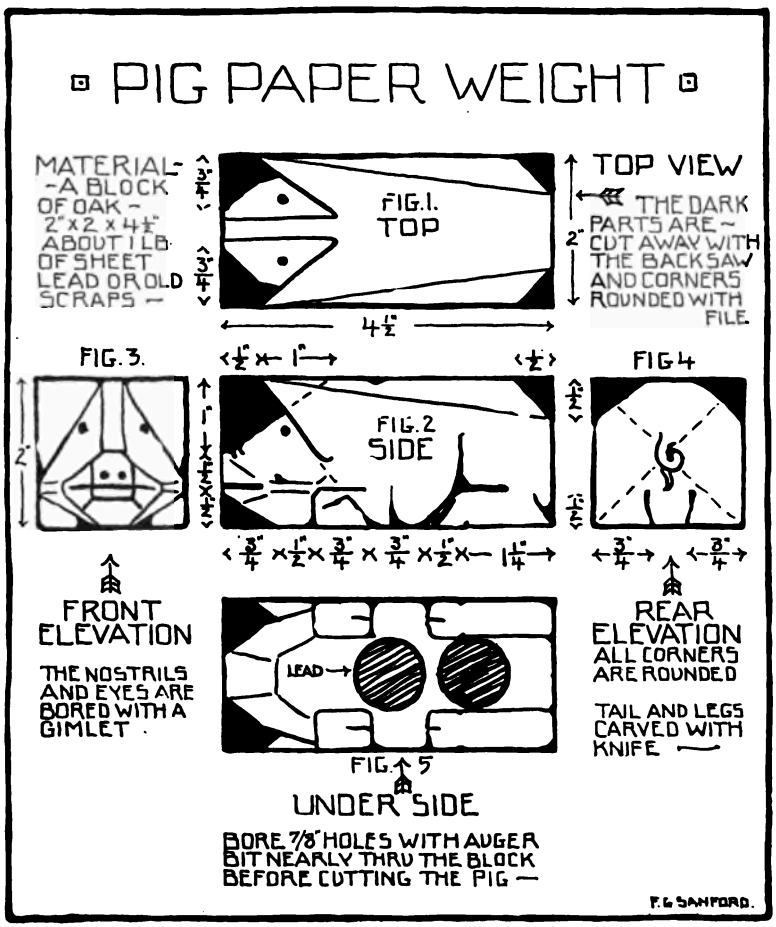
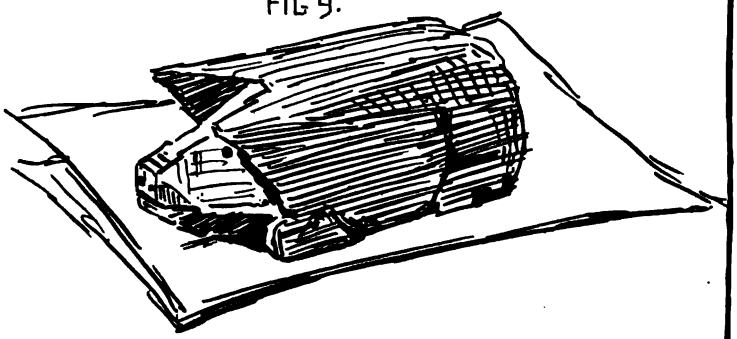

PIG PAPER WEIGHT
MATERIAL- -A BLOCK OF OAK - 2" x 2 x 4½" ABOUT 1 LB. OF SHEET LEAD OR OLD SCRAPS —
FIG. 1. TOP
4½"
TOP VIEW
THE DARK PARTS ARE - CUT AWAY WITH THE BACK SAW AND CORNERS ROUNDED WITH FILE.
2"
FIG. 3.
2"
FIG. 2 SIDE
FIG 4
FRONT ELEVATION
THE NOSTRILS AND EYES ARE BORED WITH A GIMLET.
LEAD
FIG. 5
UNDER SIDE
BORE 7/8" HOLES WITH AUGER BIT NEARLY THRU THE BLOCK BEFORE CUTTING THE PIG —
REAR ELEVATION
ALL CORNERS ARE ROUNDED
TAIL AND LEGS CARVED WITH KNIFE —
F. G. SANFORD.

FIG 9.



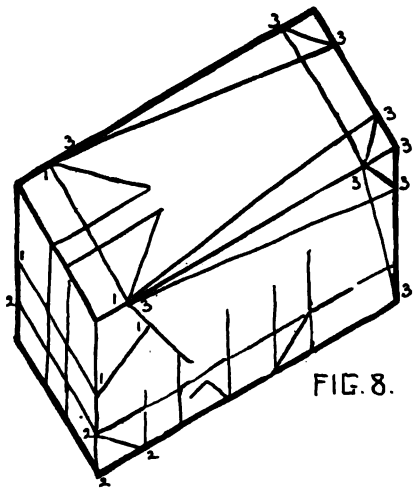


FIG. 8.

F.G. SANFORD.

Sheet lead, or solder, for filling the holes can be melted in a stew-pan, dipper, or ladle, and poured in very carefully. Work off the surplus lead with a file and sandpaper and cut your initials in the smooth lead surface.

Now with a few coats of oil rubbed down and well dried, piggy is finished and heavy enough to perform his duties on the desk, Fig. 9.

FRANK G. SANFORD
Oneonta, New York

WEAVING

DOLL'S MUFF

PROCESSES. Warp and weft both continuous forming a selvage. A wooden needle for tool. Individual and co-operative work.

MATERIALS. White roving and white warp cord; a chalk box; loom of wood or strawboard.

DIRECTIONS FOR MAKING

Use the long side of a chalk box for a loom when making the muff. Cut two-yard lengths of roving for the warp. About twelve inches from one end of the warp place a knot and use this to hold the warp in its place behind the first notch of the loom. Continue to warp until there are seven rows. Tie the two ends of the warp together at the back of the loom. These ends furnish the neck-cord for the muff.

Use a continuous weft, forming a selvage. Give the pupils strands of material about one and a half yards long for the weaving. When a new strand is needed lap over the old about one and one-half inches. Place a temporary knot at the beginning of the weft thread if there is a tendency to ravel. After the weaving is finished, remove the piece from the loom. Draw up the ends of the warp, gathering the sides of the muff into the desired shape. Join the muff by carrying each end of the warp across to the opposite side. To form the neck cord tie these ends into a bow-knot.

Cardboard loom for tippet. Doll's tippet of white roving. Loom for muff, made of long side of chalk box. Doll's muff of white roving. Child's muff of gray roving. Child's tippet of gray roving.

DOLL'S TIPPET

To make the tippet or collar, use a loom of any width and about twelve inches long. Strips of strawboard notched at the short-ends, (1-4″ spacing) can also be used.

For the warp, use seven feet of cord or string. For the weft, use white roving. Tie the end of the warp to the first notch or nail and pass it thru each notch forming seven warp threads 1-4″ apart. Tie the warp to the last notch. The loose ends left after warping can be covered over in weaving.

Before beginning to weave draw the warp threads together at the middle of the collar by tying with a short piece of string. This will serve to regulate the width of the tippet which is narrow at the middle of the back and wider in front. Weave from the two ends towards the center. Cut short lengths of the roving for the fringe. Put fringe at both ends thru the loops of the warp.

A large muff and tippet can be made in the same way.

KATHARINE FRENCH STEIGER

Director of Domestic Art
Rochester, New York

NEEDLEWORK

COSTUME FOR A GERMAN VILLAGE MAIDEN

THE WATCH ON THE RHINE

A voice resounds like thunder peal,
Mid dashing waves and clang of steel:—
"The Rhine, the Rhine, the German Rhine!
Who guards to-day my stream divine?"

CHORUS

Dear Fatherland, no danger thine:
Firm stand thy sons to watch the Rhine!

They stand; a hundred thousand strong,
Quick to avenge their country's wrong;
With filial love their bosoms swell,
They'll guard the sacred landmarks well!

The dead of a heroic race
From heaven look down and meet their gaze;
They swear with dauntless heart, "O Rhine,
Be German as this breast of mine!"

While flows one drop of German blood,
Or sword remains to guard thy flood,
While rifle rests in patriot hand,—
No foe shall tread my sacred strand!

Our oath resounds, the river flows,
In golden light our banner glows;
Our hearts will guard thy stream divine.
The Rhine, the Rhine, the German Rhine!

In your German history you have learned how carefully the Kaiser watches over his people, their early education, their training for life, the compulsory, military service for the young men, and the training in the home-making arts for the girls. Did you ever think how like one family that could make a whole nation, how similar the education of all would be, altho born in different stations in life—how it would be possible for all to join in the same games and sports, and in the same music and songs?

One interesting feature of German country life is the choir festival which is occasionally held in the villages, and which might well be followed in our own country. If neighboring villages would organize competitive games or folk dances, or festivals of music, much could be done to enliven village life, and also afford a means of culture in art, history, and music.

A few years ago, quite a notable Choral Fête was held at the village of Ems in Germany, in celebration of the 25th anniversary of the choral society of the village.

This society invited all the choral societies of the province to enlist in a competition for prizes offered by the reigning prince.

It was an occasion of great festivity for the entire village, all the homes and public buildings were decorated, business was generally suspended, and the householders kept open house for the visiting choirs during their stay of two or three days.

The village park was like a country fair, with its swings, merry-go-rounds, and booths, and the first part of the gathering was entirely given over to merry-making, processions, speech-making, illuminations, dancing and feasting.

Then came the meetings of the competing choirs, which took place in three different parts of the village, two of these meetings being devoted to elaborate and artistic music, and the third to national songs.

It is in the latter gathering that our interest lies, as it does also in connection with the national dances, for who can measure the influence that participation in these national songs will have, or who but those of us who have heard them sung in large gatherings can realize the emotions they will arouse, or the feeling of unity they will create.

German national songs are peculiar in their fervent expressions of devotion to God, and to their Fatherland. The feeling expressed in "The Watch on the Rhine," given above, is typical of many of the national songs of Germany. This song was written by Max Schneckenburger, and was called forth by the Franco-Prussian war in 1870.

Altho Germany is composed of so many distinct provinces, the unity of the country is preserved fully as much by the national songs and customs, which one finds from its northern to its southern boundaries, as by its paternal government.

While the costume this month is for a German village maiden, and the suggestion will doubtless be utilized in German folk dances, let us think a little about the possibilities of these choir festivals. Might we not have competitive musical gatherings between different schools, allowing the personnel of the pupils in the school to determine the music and the costume?

DIRECTIONS FOR PATTERN

In this costume for a German peasant girl we see the effect of the free, outdoor life in the loose, full waist, crossed in front, the bodice with its deep arm holes, and the plain, full skirt.

The costume illustrated is made as follows:—the waist and bodice from a soft, white cheese cloth of a fine quality, the skirt from a red plaid gingham, and the apron from black silk.

The surpliced fronts of the waist are featherstitched in red, and the bodice is trimmed with embroidered bands of red, one of which also ornaments the sleeve at the wrist.

The apron is again ornamented by embroidered bands of red and white. These bands may be very effectively worked out in cross stitch on a coarse white scrim, and then cut into bands.

SHIRT WAIST

Front. Paper 7 1-2″ x 6 1-2″. Letter as in chart.

Point 1 = 2 3-4″ from A. Point 2 = 1 1-2″ from A. Point 3 = 4 1-2″ from A. Point 4 = 1 1-2″ from 3. Point 5 = 1-2 of line 4-2. Point 6 = 1-4″ from 5.

Draw curve 1-2-6-4 for arm hole. Point 7 = 4 1-2″ from C. Draw line from 4-7, then curve slightly inside this line for sewing line of under-arm seam.

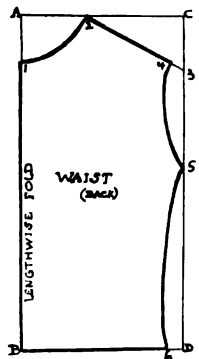


FIG 2

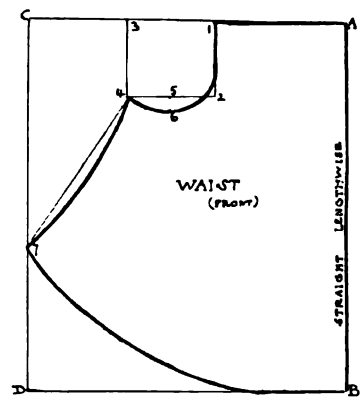


FIG 1

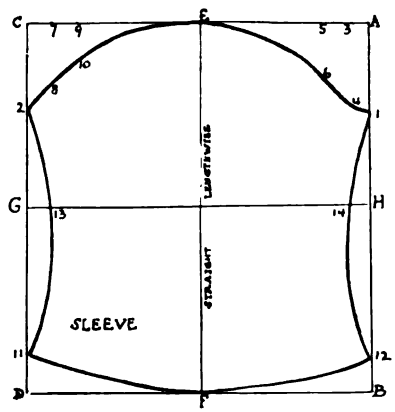


FIG 3

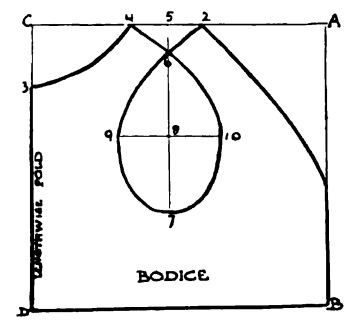


FIG 4

PATTERNS FOR 19" DOLL
SCALE $\frac{1}{4}$" = 1"

Back. Paper 6 3-4" x 3 1-4". Letter as in chart. Point 1 = 1" from A. Point 2 = 1 1-4" from A. Draw curve 1-2 for back of neck. Point 3 = 1" from C. Draw shoulder line 2-3 and cut off at Point 4, which is 2" from 2. Point 5 = 3" from 6. Draw curve 4-5 for arm hole. Point 6 = 1-4" from D. Draw slight curve from 5-6, which is under-arm seam.

Sleeve. Paper 7 1-2″ x 7″. Letter as in chart. Divide paper in quarters by diameters EF and GH. E = highest point of curve of upper part of sleeve. F = lowest part of curve at hand.

Point 1 = 1 3-4″ from A. Point 2 = 1 3-4″ from C. Point 3 = 1-2″ from A. Point 4 = 1 1-2″ from 3. Point 5 = 1″ from A. Point 6 = 1″ from 5. Point 7 = 1-2″ from C. Point 8 = 1 1-4″ from 7. Point 9 = 1″ from C. Point 10 = 3-4″ from 9. Draw curve for top of sleeve. Point 11 = 3-4″ from D. Point 12 = 3-4″ from B. Draw curve for bottom of sleeve. Point 13 = 1-2″ from G. Point 14 = 1-2″ from H. Draw curve for inside seams of sleeve.

BODICE

Paper 5 3-4″ x 6″. Letter as in chart. Point 1 = 3 1-4″ from A. Point 2 = 2 1-2″ from A. Draw curve for front of neck. Point 3 = 1 1-4″ from C. Point 4 = 2″ from C. Draw curve for back of neck. Point 5 = 3 1-4″ from A. Point 6 = 1-2″ from 5. Point 7 = 3 3-4″ from 5. Point 8 = 1 1-2″ from 7. Point 9 = 1″ from 8. Point 10 = 1″ from 8.

Here is a fine chance for drawing a full, free curve for the deep arm hole of the bodice, and continuing it, to form the shoulder seams!

To make: Cut all parts double. Line AB of front to be straight lengthwise of material (on the selvage, or even with the selvage of the material).

Line AB of back to be on a lengthwise fold of material, that is, a fold parallel with the selvage. Line EF of sleeve to be straight lengthwise.

Line CD of bodice to be on a lengthwise fold if cloth is wide enough to permit, if not, place line AB, straight lengthwise, and allow for seam to come in center back (on line CD). In making, gather the shoulder seam of front of waist to fit back shoulder. The sleeve is cut long enough to allow for the double ruffle at wrist, (the embroidered band is to be placed over gathering).

The bodice is to be laced up the front with red cord, which may be twisted by the children.

The apron is made full and straight, and is 11 inches in width. The embroidered bands are placed, one in the center of apron and one in the center of each half.

The skirt measures 27 inches in width for the doll.

The hair should be braided in two braids, crossed in the back and wound around the head.

Patterns in a ten or twelve year size may be made by multiplying these dimensions by three.

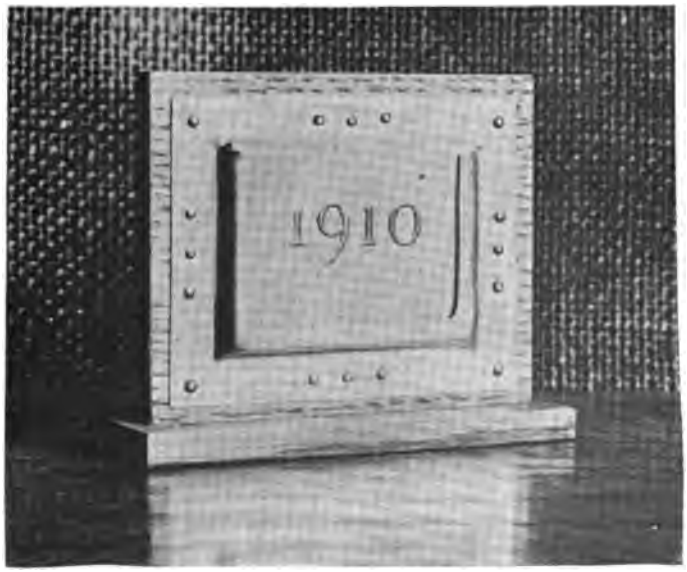
BLANCHE E. HYDE

Newton, Massachusetts

METALRY

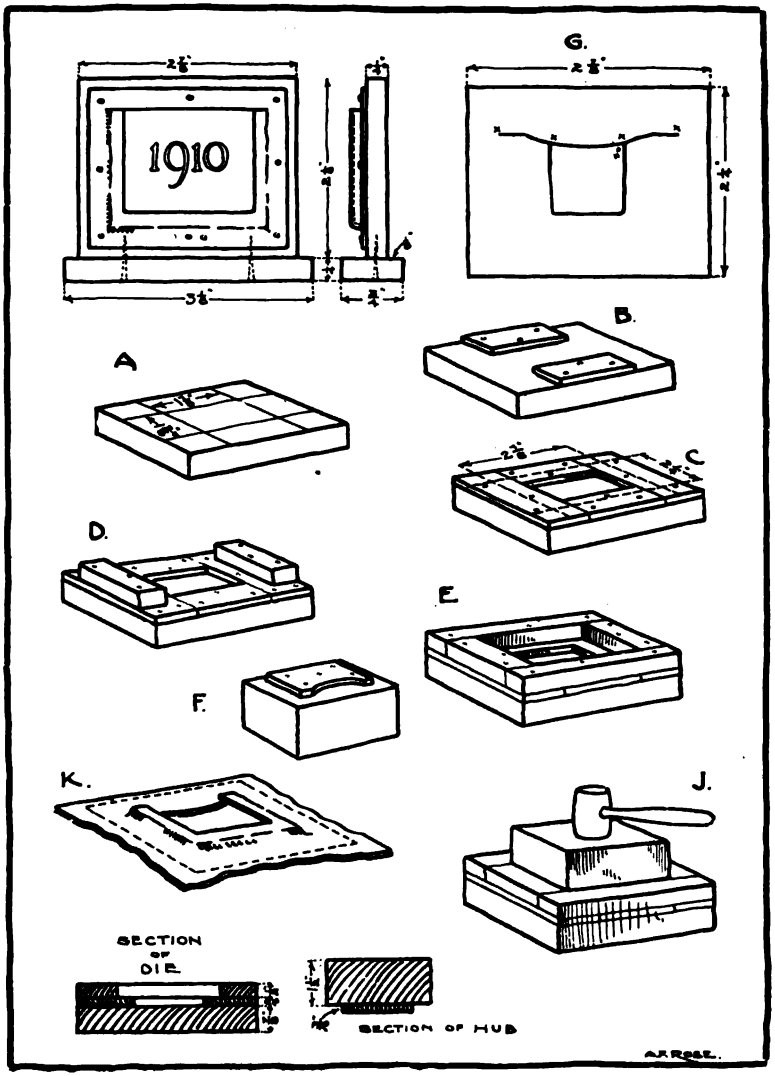
CALENDAR HOLDER

One of the things that demands everyone's attention in December is the calendar for 1910, and the problem for this month is the making of a calendar holder to stand on a desk or table, that is very simple in construction, quickly made, and costs but a few cents for materials. Some boys may like to duplicate



this, a thing which can easily be done after the first one is made, to be used for a New Year's gift. When this problem is made and inclosed in a neat little box it makes a gift gladly received by anyone.

This holder may be made for any size calendar but the one illustrated is for a calendar 1 3-4″ x 1 3-8″. The first thing necessary is a mould or die in which the holder is pressed into shape. A plunger or hub is also needed


1910
G.
A
B.
C
D.
E
F
K.
J.
SECTION OF DIE
SECTION OF HUB

with which to do the forcing. To make the die and hub we need the following pieces of some kind of hard wood.

For the die: 1 piece 6″ x 5″ x 7-8″, 2 pieces 1 7-8″ x 1 1-2″ x 3-16″, 2 pieces 4 3-8″ x 1 1-2″ x 3-16″, 2 pieces 2 1-4″ x 1″ x 1-2″, 2 pieces 4 3-4″ x 1″ x 1-2″.

For the hub: 1 piece 2 7-8″ x 2 1-4″ x 1 1-2″, 1 piece 1 13-16″ x 1 5-16″ x 3-16″.

Take the piece 6″ x 5″ x 7-8″ and square lines on it as at A, having the center space measure 1 3-8″ x 1 7-8″. Place the two pieces 1 7-8″ x 1 1-2″ x 3-16″ on piece A and nail in place as at B. Use 1-2″ wire brads, and it is well to use an awl or small drill to prevent the thin pieces from splitting. Next take the two pieces 4 3-8″ x 1 1-2″ x 3-16″ and place them as shown at C. Now square lines again across the top as shown at C, having the center space measure 2 7-8″ x 2 1-4″. Take the two pieces 2 1-4″ x 1″ x 1-2″ and place them on as at D, and so on with the two pieces 4 3-4″ x 1″ x 1-2″ leaving the die when finished as shown at E.

To make the hub or plunger, take the piece of stock 2 7-8″ x 2 1-4″ x 1 1-2″ and nail the piece 1 13-16″ x 1 5-16″ x 3-16″ to one side of it, being careful to have it nicely centered as at F.

We now have our die and hub ready to make the first impression of the holder. Take the piece of 26 gauge copper 2 7-8″ x 2 1-4″ and lay out lines on it as shown at G. Drill a hole at H and with the small piercing saw cut along these lines, causing the center to drop out; also make the two cuts at x x. Next place the metal in the die and place the plunger as shown at J, and with a mallet drive the metal into the die, forcing it into the shape shown at K.

The piece of metal we start with is larger than the finished size, to allow for contraction. Altho the edges are true when we begin, they are very irregular when taken from the die and must be trimmed to the required size, as shown by dotted lines, K. The edges will also crimp a little, but this is removed by placing the edge over a flat surface and hammering lightly. All edges should be finished with the file and emery paper. The holes are then drilled for the rivets. The upright is now fastened to the base, either with screws or nails, and in either case the awl or drill should be used to prevent splitting. The upright and base may be stained or left in the natural wood color and the holder may be oxidized or left bright. After staining and coloring as desired, the holder is fastened to the upright. Place rivets in the top corners first, being careful to get the space between the edge of the metal and

the edge of the upright equal on all sides. When this has been done the rest of the rivets may be placed as desired and if grouped in some way may add interest.

There are no tools needed for this problem other than those specified in previous articles.

MATERIALS

A piece of 26 gauge copper 2 1-4" x 2 7-8". Sixteen 1-4" rivets. A calendar 1 3-4" x 1 1-4".

To enable those interested in this problem to obtain the necessary materials, Mr. Rose will send them as specified above on receipt of $.15 in stamps. All correspondence to Mr. Rose should be addressed to 14 Woodbridge St., Cambridge, Mass.

AUGUSTUS F. ROSE
Boston, Massachusetts

HELPFUL REFERENCE MATERIAL

Illustrative Drawing and Representation in General

Bound volumes of The School Arts Book (Dec., Jan., Feb. numbers). Freehand Drawing, Cross, Ginn & Co. Freehand Perspective and Sketching, Norton. Prang Text Books of Art Education. Thompson's Model and Object Drawing, Heath. Council Year-Book, 1906, Boone, Representation in Three Dimensions; 1902, p. 92; 1903, p. 46, etc.; 1904, p. 37, etc. See also Studies in Childhood, Sully, Chapter X, The Young Draughtsman.

Pencil Handling

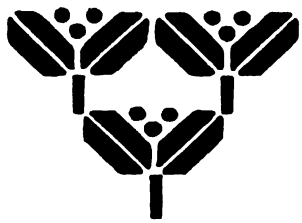
Berry, Book, May 1902. Weston, Book, May 1909. Pencil Sketching from Nature, Dr. Haney, The Davis Press. Applied Arts Drawing Books, Seegmiller. Parallel Course Drawing Books, Hammock. The Manual Arts for Elementary Schools, Hammock.

Water Color Handling

Parsons, Book, November 1904. Jones, Book, February 1904. Norton, Book, January 1905. Doyle, Book, June 1907. Kelley, Book, May 1909. A Course in Water Color, Prang Educational Co. Applied Arts Drawing Books, Seegmiller. Parallel Course Drawing Books, Hammock. The Manual Arts for Elementary Schools, Hammock.

Pen and Ink Handling

Hall, Book, December 1906, April 1909, September 1909, and "With Brush and Pen," chapter on "Still Life." Rice, Book, April 1907. Pen Drawing, Maginnis, Bates & Guild Co. Pen Drawing and Pen Draughtsmen, Pennell.



Glory to God in the highest and on

DECEMBER

KEEP your heart full of veneration and love; no room in it for scorn of anything sacred.... There is left to think of sun and moons and seasons and earth and seas & monuments and images and the lives of the great:—all these may be your life if you will
Burne Jones.

1 WED ○

2 THU ◔

Lo, how the firmament within an azure fold
The flock of stars hath pent that we might them behold.
Edmund Bolton.

3 FRI ◔ Sir Frederick Leighton b. 1830. He lent to classic subjects a romantic splendor of color and design and fresh dramatic power.

4 SAT ◔

SAP check'd with frost and lusty leaves all gone,
Beauty o'er snowed and bareness everywhere.
Shakespeare.

5 ✠ ◔

ART, using the word in its widest and due signification, is not a mere adjunct of life which free and happy men can do without, but the necessary expression and indispensible instrument of human happiness.
William Morris

6 MON ◕

7 TUE ◕ Bernini b. 1598. Italian sculptor who built the great colonnades of St. Peter's. Hobbema d. 1709. Dutch.

8 WED ◕ Adolf Menzel b. 1815. German painter illustrator and engraver. "A true artist, full of tact and taste, of elegance and easy grace," said Emil Michel

9 THU ◕ John Milton b. 1608.

Thy soul was like a
star and dwelt apart.
Wordsworth

We must be free or die
Who speak the tongue that
Shakespeare spoke.
The faith and morals hold
That Milton held.
Wordsworth

10 FRI ●

11 SAT ● Pintoricchio d. 1513.

Fellow citizen and
partner of Perugino.
He had an immense
sense of decorative pattern.

12 ✠ ●

The sea hath its pearls,
The heaven hath its stars,
But my heart, my heart,
My heart hath its love.
So said

13 MON ● Franz Lenbach b. 1826. German portrait painter. Heine b. 1797.

14 TUE ● Puvis de Chavannes b. 1824. French master of decorative painting. Has important frescoes in the Boston Public Library.

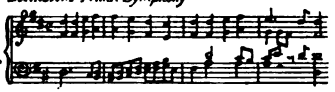
15 WED ◕ George Romney b. 1734. Shared the honors of English portraiture with Sir Joshua Reynolds.

earth peace, good will toward men

Luke 2. 14.

DECEMBER

A phrase from the "Hallelujah Chorus" of Beethoven's Ninth Symphony



16 THU ◐ **Beethoven b. 1770.** Incomparable master.

17 FRI ◐ **Whittier b. 1807.** **Stradivarius d. 1737.**

18 SAT ◐ Shut in from all the world without, We sat the clean-winged hearth about, Craftsman of Cremona. "God be praisd Antonio Stradivari has an eye That winces at false work and loves the true." *George Eliot*

19 ✠ ◐ Content to let the north-wind roar in baffled rage at pane [& door,

20 MON ◐ I saw the days deformed and low, Old and bent by cold and snow. *Emerson.* While the red logs before us beat the frost line back with [tropic heat *Whittier*

21 TUE ◐ **The shortest day** Winter Solstice. The seven days before it & after it are called the Halcyon Days. **Masaccio b. 1401** "Held Giotto by one hand and reached for ward to Raphael with the other."

22 WED ◐ **"Old" John Crome b. 1768.** English landscape painter & etcher.

23 THU ◐ He neither shall be born in housen nor in hall, Nor in the place of Paradise, but in an ox's stall.

24 FRI ◐ The Star of Bethlehem is too beautiful not to be true. Kindle the Christmas brand. *Herrick* *Burne Jones.*

25 SAT ○ **Jesus, the Christ.** This is Christmas Day, the anniversary of the worlds greatest event. To one day all the early world looked forward; to the same day the later world looks back. That day holds time together. *Alexander Smith* The truth the wise men sought was spoken by a child. *Van Dyke* He neither shall be clothed In purple nor in pall, But in the fair white linen That usen babies all. *Old Carol* What can I give Him, Poor as I am? If I were a shepherd I would bring a lamb; If I were a wise man I would do my part; Yet what I can I give Him: Give my heart. *Christina Rossetti*

26 ○

27 MON ○

28 TUE ○

29 WED ○

30 THU ◑ To follow Times dying melodies through, And never to lose the old in the new, And ever to solve the discords true, Love alone can do. *Sidney Lanier*

31 FRI ◑

Arranged by Elizabeth Kellogg
Drawn by H T B

Christmas comes but once a year
When it comes it brings good cheer

EDITORIAL

THE motto of The School Arts Guild, "I will try to make THIS piece of work my best," ought to be hung in every schoolroom in America, and laid to heart by every worker. We Americans boast that we can do everything. We can; but we do almost nothing supremely well. England makes better paper and cloth, Germany better drawing instruments and purer chemicals, France better bread and more beautiful finery. Our best weavers have been imported from Scotland, our best potters from Bavaria, our best stone cutters from Italy, our best watchmakers from Switzerland, and our best metal workers from Saxony. Our best designers in every art-industry have come to us from European art schools. We have hardly a native-born mechanic in the United States who can make a wooden roof that won't leak, a leather boot that won't crack, a rocking chair that won't squeak in the joints, a piece of colored stuff that won't run in the wash, or a child's toy that won't fall to pieces before it is off the Christmas tree. Our besetting sin is Superficiality. If we are to outgrow it we must in our schools attempt less and achieve more. We must discover what's worth doing at all, and then determine to do that well.

Good work is always the result of three factors,—interest, information, and skill; and the most potent of these with children is interest. A boy's interest in skating or swimming or playing

ball leads him to pick up information and to persist in practice until he attains skill. That children may have an interest in fine handicraft, may have that which George H. Martin has happily called "a motive for productive effort" ("the greatest need of the modern school"), the geometrical drawing and constructive design in The School Arts Course have been placed before Christmas. To make something useful and beautiful for somebody the child likes, is one of his most easily-fired motives for productive effort. Such a task will hold him to a higher standard for a longer period of time than any other yet discovered.

When we have initiated such work let us not deceive the child with make-a-bluff-and-trust-to-luck methods, or debauch him with get-rich-quick devices, but let us place in his way all the informing material we can gather, material which shall exhibit appropriate mediums, useful processes, and tasteful results.

And let us encourage rational aims. A child would better aim to make a simple thing that he can make well, than to aim to make a complex thing that he cannot possibly make other than ill. Perhaps a modern version of an old saw would be worth learning:

A little heart well willed,
A little thought well milled,
A little task FULfilled.

Herein is wisdom. Herein lies the secret of good results in school. Herein lies the guarantee of good results in the arts and industries of our country, for such a condition is the only root from which can grow

A great deed resolved,
A great thought evolved,
A great problem solved.

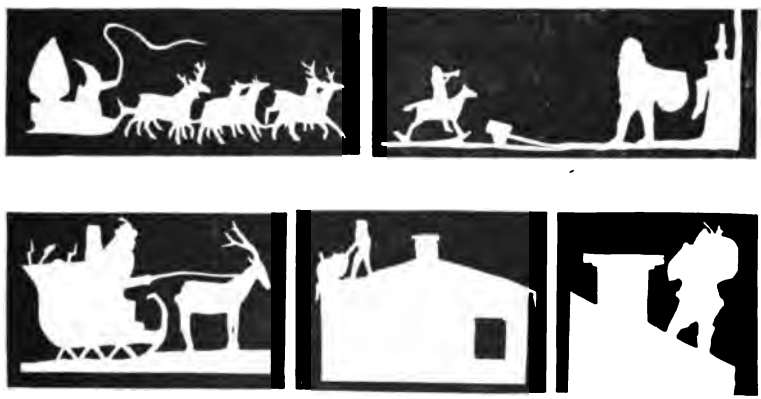
¶ Our Christmas work will therefore be of interest to our children, within the range of their powers in each grade, well planned, and well executed. We will teach them that to *make* and give a gift is more blessed than to *buy* and give it; and that to receive a home-made gift from a loving heart is more blessed than to receive a shop-made gift from a lustful one. It lies with us in the public schools of our day to deliver the next generation from an evil so dire that it might be called the Curse of Christmas. Unless the present tendency to the lavish exchange of expensive gifts is checked by a counter movement in favor of a saner expression of good will, the very spirit of the day will depart and leave it dead. The peace of Christmas ought not to be driven away by pride, nor its joy swallowed up of jealousy.

¶ A Christmas token in the form of a card or letter with appropriate decoration, is a delight to both maker and receiver. Mr. Hall's contribution to this number will help in the production of better work of this kind. The card containing Christmas wishes, reproduced herewith, is a design by Miss Mary Dougherty, one of the second term students in the Indiana Normal School of Pennsylvania. It is a sample of the designs actually reproduced

in printing under the direction of Miss Jean McElhaney. The articles on the making of useful objects in school and workshop, are supplemented by the work of Mr. Keller and Mr. Koch. Mr. Keller's poster supplement shows Santa coming to the door of his house to see what the postman has left for him. It is thoroly original, quaint, and decorative, and an interesting bit of work from the technical point of view. Mr. Koch's frontispiece Santa is about to descend the chimney, while his other St. Nick, on page 402, is bringing in the Christmas tree. The tailpieces, pages 349 and 399, are also by this talented artist, who is to have fresh delights for us in the New Year's number, and, we hope, in many others. The panel at the heading of this editorial was made up from scraps clipped from a photograph of Raphael's Sybils, in the church of S. Maria della Pace, Rome. The three scraps give details of the sculptured decorations upon the lower walls. The Art-Craft Calendar by Miss Elizabeth Kellogg is proving a most acceptable innovation. A demand for this calendar in separate form seems to be growing. Perhaps Miss Kellogg will revise it that we may publish it as a gift-calendar another year.

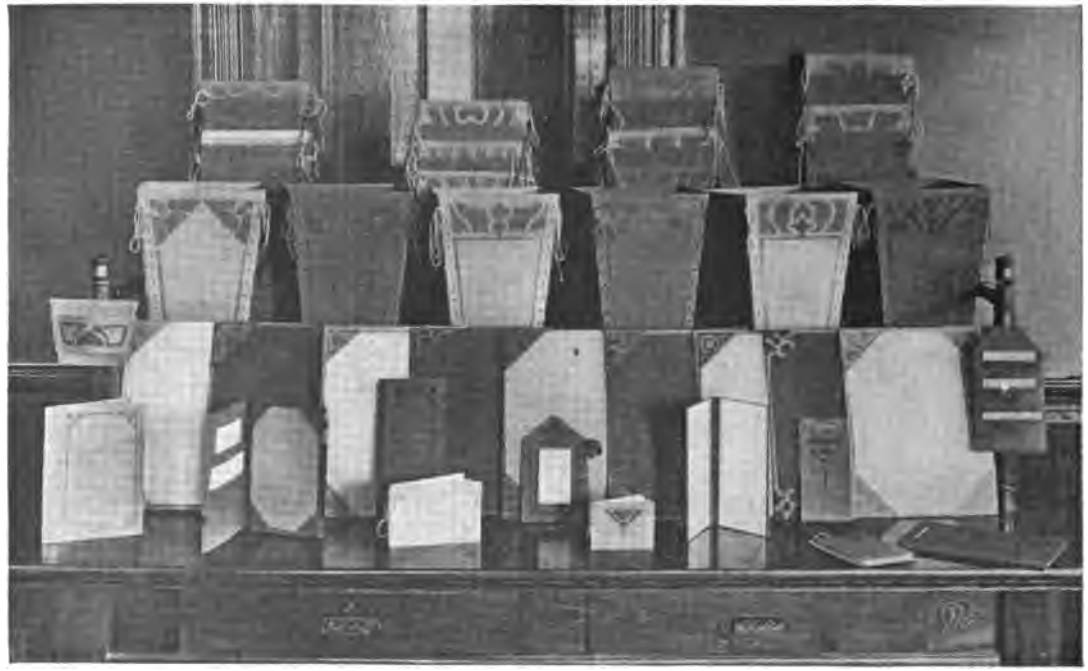
¶ The illustration of the Santa Claus story affords children never-failing delight. Among the best illustrations which came to me last year were some paper cuttings by primary grade children in Greenville, Ohio. Two of those from one series and three from another are reproduced on page 407. These are full of spirit and naïve humor and in the original were effective schemes of color, for they were cut from ordinary manila paper and pasted on a rich, dark brown ground.

¶ I am always glad to receive photographs of good school work for if the photographs are clean-cut, I can reproduce them and share my pleasure with the readers of The School Arts Book.



Typical illustrations from two sets of paper cuttings by primary children, Greenville, Ohio.

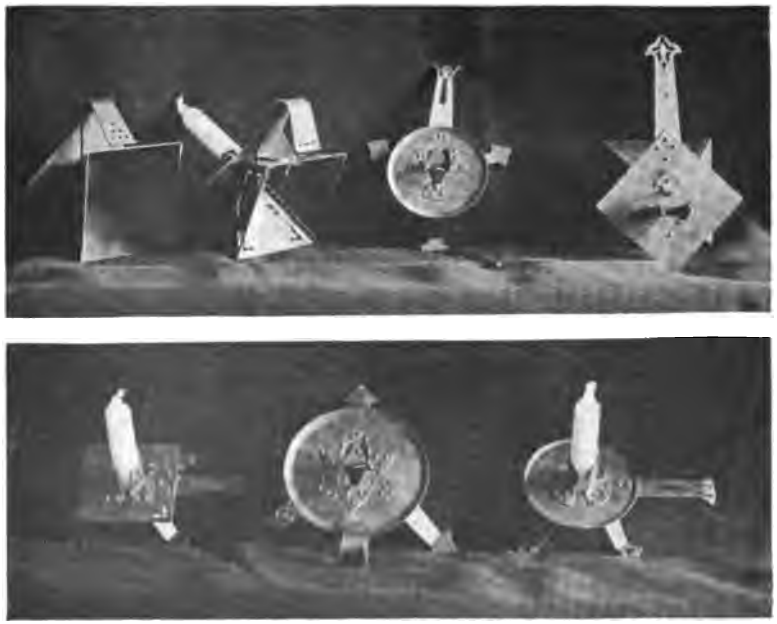
To see the work of others is always hintful, and especially if one's mind is wide open to suggestion, as it is likely to be just before Christmas. The plate on page 408 is from work done under the direction of Miss Mary E. Baker, Supervisor of Drawing, Bellows Falls, Vt. It is well designed, substantial, and skilfully made in paper and cardboard. The plate on page 409 shows work done in New York City under the direction of Miss Elizabeth Morse. It exhibits a wholesome respect for the various materials and a marked individuality in the treatment of the different subjects. The candlesticks reproduced on page 410, together with the little cut on page 413, are recent results in metal work under the direction of Mr. Luther W. Turner of The Hill School, Pottstown, Pa. An especially commendable feature of this work is the clever use of the rivet as a decorative element. Mr. Turner is following the best traditions of the metal workers of the Middle Ages. His results have the charm that always accompanies the frank acceptance and the tasteful utilization of necessary elements.



Examples of work in paper and cardboard by grammar grade pupils, Bellows Falls, Vt. Brush-broom cases, autograph albums, and calendars from Grade V. Note-books and post card books from Grade VI. Telephone pads from Grade VII. Writing pads from Grade VIII. Blotter pads, waste baskets, and clipping cases from Grade IX.

Examples of work in metal and leather by high school pupils, New York City.

¶ Constructive work at home should be encouraged. A course is of but little importance compared with construction itself. "The play's the thing," not "Words, words, words." The illustration on page 411 is from a pung made by a little craftsman



Copper candlesticks by boys in The Hill School, Pottstown, Pa

somewhere in the northern zone. Name and address were written on a slip of paper accompanying the object, but alas, the paper "flew de coop." The work remains as a monument to the boy's ingenuity and budding skill, and as an incentive, let us hope, to other boys to essay constructive problems.

¶ The cover stamp this month is from the church of St. Sebald, Nuremberg, built in the eleventh century, and best classified as Early Christian in style. Its structure is usually described as Romanesque, while its ornament is called Byzantine by Owen Jones. These two names designate really the same art, namely, that which appeared in the Christian world after the downfall of pagan Rome, and before the rise of the Gothic. In the east

the art was called Byzantine; in the west, Romanesque. It was charged with symbolism. The triangle is a very old, pre-Christian symbol of the supreme deity. Doubled, forming a six-pointed star, it symbolized a double portion of the divine spirit, as manifested in wisdom, hence it came to be known as the Seal of Solomon. In that form, with a sun disc in the center, it was stamped upon Mohammedan coins. To show that a greater than Solomon had appeared, the early Christian artists added the circle, symbol of eternal perfection, and changed the sun disc to the flower form, because their Master was called "The rose of Sharon and the lily of the valley," and because his religion was life-giving,

wherever it could get lodgment in the hearts of men, sure to make the desert blossom, and the wilderness rejoice. In drawing this symbol, begin with the outside circle and work inward. Be careful to have the interlacing right. In all good interlacing each strap always goes over one and under the next, without exception—over the third and under the fourth, etc. This beautiful old symbol of the Christ is peculiarly appropriate to the Christmas number.

¶ For vigorous looking vases of simple form, odd effective decoration, soft color, pleasing texture, and dull finish, vases just right for holding flowers and for use in still life groups, vases of reasonable price, the product of an American art industry, send to the Ferock Studios, Zanesville, Ohio.

¶ An event deserving more than a passing notice is the recent appointment of Royal B. Farnum to the position of State Supervisor of Art Instruction for New York. Mr. Farnum is a Massachusetts man, a graduate of the Massachusetts Normal Art School. He has been a teacher of drawing and handicraft in the Cleveland School of Art, head of its normal art department, teacher in the Cleveland Central High School, in the University School, and in the Cleveland Kindergarten Training School, and Director of the Art Department of the Summer School of the South, Knoxville, Tennessee. In 1908 Mr. Farnum was a delegate to the Third International Congress on Art Education, London. In the civil service examination prerequisite to appointment to office in the New York State Department of Education, Mr. Farnum stood first in the number of credits secured. He will begin his new work, therefore, with the respect and good will of every teacher in the State, as well as with the best wishes of all his friends.

¶ The Editor would be glad to receive at any time news items from anywhere, which are significant as indicating a growth of interest in the manual arts or an increasing appreciation of the good work of instructors of drawing, manual training, and handicraft. The School Arts Book is not to become a newspaper nor a vender of mere gossip, but in the personal realm it wishes to live up to the injunction, "Give honor to whom honor is due." Obviously, it is impossible for such information to be gathered without the co-operation of those who are interested in promoting the welfare of the profession.

CORRESPONDENCE

My dear Mr. Bailey:

I am sending you two pictures of some work we did in connection with the Hudson-Fulton Celebration. I do not know that you can make any use of them, but thought you might be interested to see them.

We took up the study of water transportation in our history work; then worked out the different means of crossing water, from the earliest swimming-

Models showing the evolution of the boat as a means of transportation, from the log of the primitive Indian to the steamboat of Robert Fulton.

log, through the steamboat. Part of the work was done by the third grade, part by the fourth.

The first picture shows the Indian sitting on a log, propelling himself with his own hands. The next shows the pointed log, offering less resistance; then the dug-out made of wood, with a pole this time to help progress; the pointed dug-out, with shovel-like paddle; and the frame-work canoe for greater lightness. This canoe we made of pieces of reed and flat splint tied together

with raffia. We sewed on a covering of skin made from old kid gloves, chamois skin, or any available material brought from the children's homes. The sails are shown first by the leafy boughs, next by the Indian holding up his

Photographs from two 3-foot models of the "Clermont," made by a sixth year boy and a seventh year boy.

own blanket (a piece of cloth woven by the children on a small loom), and finally, his blanket fastened to a mast.

The fourth grade then took up early pioneer craft, showing the raft, the platform raft made of sticks tied together and a cardboard platform, the flat

boat made of clay, the ark pointed at each end, and a small, crude model of Fulton's steamboat. This was made of clay with the sails and cardboard paddle-wheels.

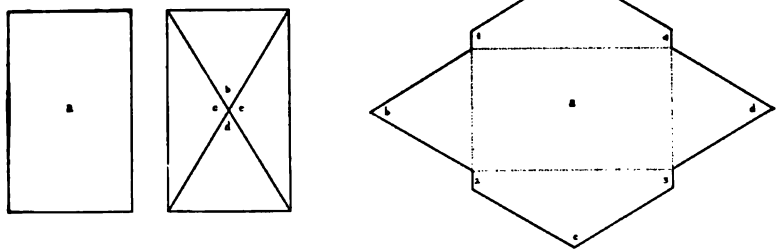
The other picture shows two 3-foot models of the "Clermont," made by a sixth year and a seventh year boy. The boys worked out their problems very much by themselves, using the plans published by the Commission for the recent full-size "Clermont." The chief attraction to the boys was the fact that each would actually run, one by means of clockwork, the other by a small battery. There was great competition between them as to who should produce the best model. Each worked in secret as far as possible.

One of the most interesting features was the study of human nature through the process of construction,—the curiosity of the other boys, as they grouped about the builders, their jeers and skepticism as to its running powers, the quiet perseverance and confidence of the workers, and the final praise and admiration of the public when they proved good. It suggested on a small scale the real problems and experience of the original "Clermont" itself. The work was done in the Albany Training School, and to me was one of the most interesting problems ever attempted. Very truly yours,

Grace E. Parsons,
Albany, N. Y

Dear Mr. Bailey:

I have just found the pattern of an envelope which I intended to send you last year. The envelope was suggested in the Annotated Outlines for



November, but as the little pupils of the fourth grade were very awkward with the ruler, I found it easier to teach it as follows:

Measure the card for which the envelope is wanted and draw two oblongs

one-eighth inch larger than this card on every side. Draw diagonals on one of the oblongs. Cut carefully around the two rectangles and on the diagonals. Place the oblong a, in the middle of a sheet of paper of the proper size and trace lightly around it. Extend the two shorter edges half an inch at each end, 1, 2, 3, and 4. Now place the four triangles b, c, d, and e around the oblong a, leaving the half-inch space between a and e, and also between a and c. Trace around the equal sides of the four triangles and the flat will be found complete.

Yours very sincerely,

A Dominican Sister,
Fall River, Mass.

My dear Mr. Bailey:

I am sending you a Santa Claus. The outline, which was Schapirographed by the teacher on bristol board, was colored, cut and mounted by the pupils.

The bag was made of tarlatan, which the children sewed with bright red worsted. We called on the Domestic Science department to pop the corn. The bag was only half filled, so that Santa would not be top heavy, and looped through to appear as though he was holding it in his hand. This was enjoyed more by our first grade children than anything we ever made at Christmas time.

As I visited one room just after they were completed, and saw them standing in rows on a shelf above the blackboard, ready to be taken home just before Christmas, a little six year old girl exclaimed, "Oh! won't he be surprised when he comes and sees his own picture on our table?"

Sincerely yours,

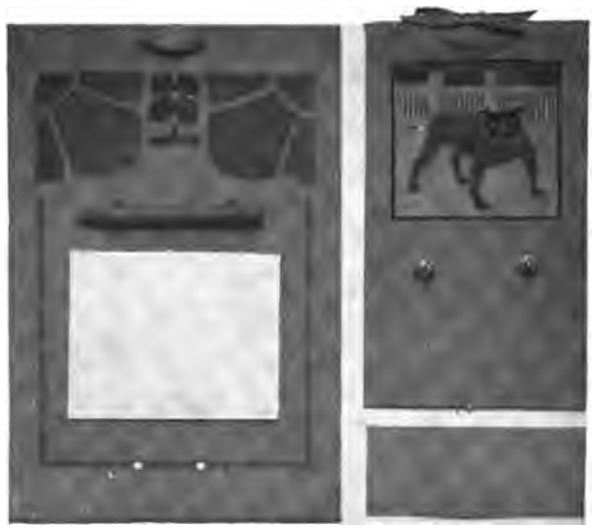
Anna Bier, Supervisor of Drawing,
Greenville, Ohio.

CORRESPONDENCE

Dear Mr. Bailey:

Knowing that the wants of a Supervisor of Drawing are many at Christmas time, I am sending to you some ideas, old in name but worked out in new ways, which have proven their value.

The little key-holder was worked out successfully by a fourth grade. Heavy cardboard of at least one-eighth inch thickness must be used for the foundation. It is well to use a tint of paper that tones nicely with the color of brass. For the key hangers, use the small size brass hooks, with one-half



the screw clipped away. White tape, colored by the pupils to the same tone as the paper, makes a good hanger.

The memorandum pad, always to be depended on, makes not only a practical lesson in ruling and measuring, but an interesting and useful gift when finished. In working out a problem of this kind, teach the law of the margins,—sides narrow, top space wider, but the lower space the widest of all. Brass hangers that go through from the right side and fasten on the wrong side, form the holder for the pencil. A cheap, unstained pencil is better than a painted one as the natural color of the wood tones into the deeper shade

of brown or of the brass hangers. This pad was worked out in a fifth and sixth grade.

Yours very truly,

Annie Smith,
Supervisor of Drawing, Urbana, Ohio.

Harwich, Mass., Oct. 10, 1909.

Mr. Henry Turner Bailey,
North Scituate, Mass.

Dear Mr. Bailey:

I wish to thank you most heartily for recommending Mr. Berry to me. Never had I expected to find so good and generous a teacher.

Thanking you again, I am

Sincerely yours,
Ingrid E. Ekman.

Dear Mr. Bailey:

I offer this suggestion which I think might be interesting as a symposium: "How can we teach the children an artistic sense of humor?" or "How can we antidote the comic supplement in its present form?" The American is a fun-loving being, more so than one of any other nationality, and the love of fun extends even to making the individual ridiculous, as shown in Merry Widow and peach-basket hats. The comic supplement is a deadly foe to good taste and good fun. What is the remedy? I know that you have had a paper in The School Arts Book on "Five-Cent Art"—but one thrust is not enough to kill the enemy.

I am

Sincerely yours,
Anne S. Perot,
Roland Park, Baltimore, Md.

THE ARTS LIBRARY

BOOK REVIEWS

School Drawing. By Fred Hamilton Daniels. 156 pp. 5 1-2 x 8 1-2. 72 full-page halftone plates. 4 full-page line plates. Milton Bradley Co. $1.20 postpaid.

Mr. Daniels describes this book briefly as a "real correlation." It is a serious attempt to make the phrase, "Use drawing freely in other studies," mean something in the schoolroom. A purist in art education would quarrel with some of the devices advocated in the book. The combination of blackboard, chalk, cut and painted paper, and paste, would be severely criticized, but the results from the child's point of view are altogether delightful, and from a teacher's point of view, praiseworthy because of the interest they develop in children and because of their potency in producing a vast amount of painstaking effort. In looking thru the book one cannot doubt the genuine educational value of such work. Around the sand table, the blackboard, and the chart, represented in the plates, one familiar with schools can see the eager and happy children each anxious to point out his contribution to the exciting pageant. One could wish that in some cases the work evinced a little more careful research. For example, in the case of Early Plymouth, the plan of the settlement is known and the historical value of the construction would have been enhanced by the following of that plan. The structure of the wind-mills of Holland is also well known and in some respects unique. Recognition of this fact would have given added value to the constructive work without adding to its difficulty. The illustrations are clear and sharp, and the text which accompanies them directly helpful in their interpretation. The book will be welcomed everywhere as a pioneer publication in its field.

The School Garden Book. Weed and Emerson. 320 pp. 5 x 7 1-2 103 illustrations. Charles Scribner's Sons. $1.25.

This is the book teachers interested in school gardening have been looking for. Mr. Emerson, the enthusiastic and efficient master of the Cobbet Grammar School of Lynn, Mass., supplements perfectly Professor Weed of the State Normal School, Lowell. The exceptional conditions under which one has worked in a model school combined with the usual conditions under which the other has worked in an industrial city, have furnished the basis for a book of unusual scope and practical value. The fact that the book is laid out by months will be appreciated by busy teachers everywhere. One can read the introduction in August and at the opening of school begin with chapter one, the work of September, and follow the year with the book as a guide. It is

a book not only for school but for all who all interested in flowers in the home. The book includes a good bibliography and index. The illustrations are useful not only as immediate interpreters of the text but as suggesting in many cases beautiful arrangements of flowers in appropriate receptacles. A pretty cover adds to the attractiveness of this welcome little volume.

Forget-Me-Nots. By Clara Powers Wilson. 176 pp. 7 x 9. Illustrated in colors. The Reilly & Britton Co., Chicago. Buckram, $1.25; Persian Ooze, $2.00.

The title page describes this original volume as "an everyday book for everybody, in which to make all kinds of memoranda." There are separate divisions for the record of addresses, anniversaries, birthdays, books loaned, engagements, guests, financial matters, notable days and experiences, etc. Each division is introduced with a clever decorative design, and the headings of the blank pages have appropriate ornamental symbols. The book contains the calendar for the year, tables of foreign coins, and postage rates. A forget-me-not end paper and a forget-me-not cover in blue still further emphasizes the idea of the book. In fact it is a blue book for red letter experiences.

Two other books by the same author and from the same publishers are equally original in design: The Menu Book (cloth $1.25; Persian ooze, $2.25), offering suggestions to puzzled housewives upon the perpetual topic, "What to Eat To-day," and My Lady's Recipes ($1.50), a record in card catalog form of household recipes which it is desired to preserve for reference. The Menu Book might be called a thesaurus of foods. It contains also blank pages for the addition of good recipes or other culinary information. The book may best be described as an elaborated and permanent form of the "Dandy Cook Book," by Sallie Bailey Brown, which appeared in this magazine in March 1906. The recipe book solves the problem with which all housekeepers have been perplexed, the problem of keeping one's recipes in order for convenient reference. The indexing cards bear well-drawn decorative designs of unusual and effective coloring, purple being the dominant note thruout. The leaves of this are a delicate yellow-green. The end papers are in orange, blue, and black; and the cover, in purple, green and yellow on a ground of shimmering white and green, is a brilliant success.*

*Another book illustrated by Mrs. Wilson, this time a book greatly enjoyed by children, is Cherry and the Chum, by Katherine M. Yates, published by A. C. McClurg & Company, Chicago, (50 cents net). It contains four full-page plates in color, and end papers of most original pattern, such as one might expect from a student of the Chicago Art Institute and of the Whistler School, Paris.

Every Christmas witnesses the appearance of a group of classic stories for children put into fresh and ravishing form. Among the best of these stories this year are the following:

GULLIVER'S TRAVELS. Illustrated by Arthur Rackham. 12 full-page plates in color with a profusion of head and tailpieces in pen-and-ink. The drawings are masterpieces in line. The plates have that delicate, soft, effective coloring for which this artist is already famous. E. P. Dutton & Co. $2.50.

TALES FROM SHAKESPEARE (Lamb's). Illustrated by Arthur Rackham. 12 full-page plates in color, and other illustrations similar in style to the volume previously mentioned. E. P. Dutton & Co. $2.50.

THE WATER BABIES. By Kingsley. Illustrated by Warwick Goble. 32 plates in color mounted on dark paper. Although the drawings contain fewer lines and are slightly richer in color, they remind one of the work of Rackham. It is a handsome volume. The Macmillan Co. $5.

ROBINSON CRUSOE. Illustrated by E. Boyd Smith. 41 illustrations, 12 of them in color, the rest in pen-and-ink. They admirably illustrate the text, altho somewhat decorative in character. Houghton, Mifflin & Co. $1.50.

ALICE'S ADVENTURES IN WONDERLAND. Illustrated by Harry Roundtree. The illustrations are abundant, rich in color, realistic in treatment and even more amusing, if possible, than the text. Thomas Nelson & Sons. $3.00.

HANSEL AND GRETEL. Illustrated by Maria L. Kirk. 12 full-page plates in soft pictorial color. F. A. Stokes & Co. $1.50. Other books illustrated by this same author are The Dog of Flanders, The Nuremburg Stove, and other stories published by Stokes, and The Back of the North Wind, published by J. B. Lippincott & Co.

THE LITTLE LAME PRINCE. "Miss Mulock." Illustrated by Hope Dunlap. 3 pictures mostly in flat tones but of full color. Rand, McNally Co. $1.25.

Among the new publications this year which are to be especially commended for the character of their illustrations are the following:

THE SEVEN AGES OF CHILDHOOD. By Jessie Willcox Smith, with verses by Carolyn Wells. This is a book of 56 pages, 7 x 10, with pen decorations

in brown, and with seven lovely and charming plates in color. For sympathetic and brilliant interpretation of young life, this work by Miss Smith is of unrivalled excellence. Moffat, Yard & Co. $2.00.

LITTLE PETER, A Christmas Morality. By Lucas Malet. Illustrated by Charles E. Brock. 60 pp. 6 1-3 x 9. 8 full-pages in rich pictorial color of dramatic character. Hodder & Stoughton, New York. $1.50.

THE CIRCUS AND ALL ABOUT IT. By E. Boyd Smith. 64 pp. 8 x 11. 16 full-page plates in telling outline colored with flat tones, and 29 in black-and-white, full of the very atmosphere of the circus itself. Frederick A. Stokes & Co. $2.00.

THE ANIMALS IN THE ARK. From the French of P. Guizon, by Edgar Mills. Illustrated by A. Vimar. The pages of this book are 7 1-2 x 9 1-2. The amusing illustrations, after the manner of Bottet de Monvel, are admirably drawn and tinted in subdued flat colors. Duffield & Co. $1.25.

THE LAND OF THE REALLY TRUE. Millicent Olmstead. Illustrated by Elenore Plaisted Abbott and Helen Alden Knipe. This book, pages 6 1-2 x 9, gives the everyday life of "Great A, Little A, and Bouncing B." It is illustrated with 12 plates boldly decorative in character. George W. Jacobs & Co., Philadelphia. $1.00.

THE KITE BOOK. By B. Cory Kilvert, pages 9 x 11. 20 full-page plates, odd, amusing, effective, clear outline with flat coloring. Dodd, Mead & Co. $1.25.

YESTERDAY'S CHILDREN. By Millicent Githa Sowerby. Pages 7 1-2 x 10. 12 plates in color, and numerous drawings in line. A rather realistic presentation of the costumes, amusements, and occupations of children of other days. Duffield & Co. $1.50.

An interesting book to see alongside of this list is School Children the World Over, by Lucy Dunton, a book of 80 pages, 8 x 10, with 36 illustrations in black-and-white made from stereoscopic photographs of school children. F. A. Stokes & Co. $1.50.

Among the books dealing with the Christmas story especially and making use of the works of the masters as illustrations, perhaps the most notable of the year is Christmas in Art, by Frederick Keppel, a book of 162 pages 6 x 9, with 32 illustrations in black-and-white from famous historic paintings and engravings, with a brief appreciation of each. Duffield & Co. $2.50.

RECENT PUBLICATIONS

Among the many sumptuous illustrated books dealing with famous cities and countries, four may be mentioned as pre-eminent:

THE HOLLAND OF TO-DAY, written and pictured by George Wharton Edwards. 217 pages, 6 1-2 x 10, with 56 illustrations, many black-and-white, some in full color, and others in black-and-white with a touch of color. Some of these last are of special value to teachers of drawing in high schools a showing simple and effective rendering. Moffat, Yard & Co. $6.00.

THE GATEWAY TO THE SAHARA. By Charles Wellington Furlong. A handsome volume, pages 6 x 8 1-2, with maps and 32 illustrations in black-and-white, and four in full color. This volume places Mr. Furlong in the rather short list of men who are equally successful as author and artist. Charles Scribner's Sons. $2.50.

THE COLOR OF PARIS. Edited by Lucien Descaves and illustrated by Yoshio Markino. 264 pages, 7 x 9, with 60 plates, 12 of them in sepia and 8 in full color from water color drawings. The book gives the "color of Paris historic, personal and local" Dodd, Mead & Co. $6.00.

THE NEW NEW YORK. By John C. Van Dyke, with illustrations by Joseph Pennell. 426 pages, 6 x 8 1-2, with 98 illustrations in black-and-white, and 25 in color. Macmillan Co. $4.00.

OTHER RECENT PUBLICATIONS

ART IN GREAT BRITAIN AND IRELAND. By Sir Walter Armstrong. The first of a comprehensive series of books which will cover the entire art history of the world, this volume dealing with all branches of art in Great Britain from earliest times to the present day. Illustrated in color, etc. Charles Scribner's Sons. $1.50 net.

MASTERS IN ART, January 1909, is devoted to the work of Mr. Alfred Stevens of the Belgian School, "the last—and perhaps the first—of those lesser Flemish masters who were great masters."

MANUAL TRAINING, the English journal, contains in its October number, under the caption "Makers of Manual Training," a sketch of John Ruskin, with an admirable halftone portrait.

MONITEUR DU DESSIN. The recent numbers reflect in an interesting way the new work required under the revised French program for art and craft instruction. This publication is becoming richer every year in suggestion for wide-awake American teachers.

AN ART-CRAFT INDEX TO THE NOVEMBER MAGAZINES

PERTINENT ARTICLES

Abroad with Mr. Caffin, Circle, p. 260.

A Lesson in Making Filet Lace, Katharine Lord, Craftsman, p. 208.

Amiens, Elizabeth Robins Pennell, Century, p. 44.

An Easy Lesson in Stenciling, Mary P. Bradley, Suburban Life, p. 247.

An Illustrator of Celtic Romance: John P. Campbell, R. A. Dawson, International Studio, p. 37.

A Reading Journey Through Egypt. III. The Pyramids and the Sphinx—Memphis and Heliopolis, James Henry Breasted, Chautauquan, p. 342.

Art in the Market Place, Edward Hale Brush, World To-day, p. 1186.

Art of Making Silhouettes, The, (concluded), Miss V. H. Wood, Palette and Bench, p. 34.

Cardboard Modelling, Felix T. Kingston, Practical Teacher, p. 257.

Color Harmony in the Home, Fred H. Daniels, Suburban Life, p. 261.

Contemporary American Landscape Painting, L. Mechlin, International Studio, p. 3.

Decoration of Hard Porcelain, The, Louis Franchet, Keramic Studio, p. 142.

Decorative Arrangement of Fruits for China, Sara Wood-Safford, Ladies' Home Journal, p. 33.

Drawing and Botany, Agnes E. Farman, Practical Teacher, p. 254.

Drawing in Public Elementary Schools, Denver, Colorado, Charles M. Carter, Practical Teacher, p. 251.

Dutch Masters, The, Outlook, p. 384.

Dutch Pictures in the Hudson-Fulton Exhibition at the Metropolitan Museum of Art, International Studio, p. iii.

Farthest South, Lieut. Shackleton, McClure's, p. 23.

Flemish and Dutch Furniture, Virginia Robie, House Beautiful, p. 141.

French Bulldog, The, Rival of the Boston Terrier, Arthur P. Bender, Suburban Life, p. 235.

Historic Types of Architecture. III. Chaldaean and Assyrian Architecture, Lewis Frederic Pilcher, Chautauquan, p. 371.

Home-made Dyes, Cordelia Stanwood, Suburban Life, p. 266.

How to Choose Color in Home Decoration, Gardner Teall, House Beautiful, p. 125.

Hudson-Fulton Exhibition of Dutch Pictures at the Metropolitan Museum, The, Frank Fowler, Scribner's, p. 637.

Hudson-Fulton Memorial Art Exhibit in New York, The, Natalie Curtis, Craftsman, p. 124.

Kentucky's Fight for an Education, Mabel Potter Daggett, Delineator, p. 413.

Lessons in Practical Metal Work and Cabinet-making, Craftsman, p. 216.

Louis Loeb—Illustrator and Painter, Century, p. 74.

Making Good Furniture out of Bad, Ekin Wallick, Ladies' Home Journal, p. 29.

Mr. Brangwyn's Tempera Frieze at the New London Offices of the Grand Trunk Railway, International Studio, p. 31.

My Ideal of the True University, Woodrow Wilson, Delineator, p. 401.

Neglected Opportunities of Suburban Schools, O. J. Kern, Suburban Life, p. 248.

New York Plans for Zoological Parks, The, William T. Hornaday, Scribner's, p. 590.

Old China: Castleford and Bow, House Beautiful, p. xvi.

Older Siam, The, Charles S. Braddock, Jr., Harper's, p. 833.

Painters and Pictures: xv, Sir John Gilbert: A Great Illustrator, W. E. Sparkes, Practical Teacher, p. 245.

Pocketbooks and Bags, Mertice MacCrea Buck, Palette and Bench, p. 41.

Raffia Basket with Cover, A, Madge E. Weinland, Palette and Bench, p. 36.
Undercurrents of New York Life depicted in the drawings of Glenn O. Coleman, Craftsman, p. 142.
What Drawing Is, Bolton Coit Brown, Craftsman, p. 214.
What is a College for? Woodrow Wilson, Scribner's, p. 570.
Whiskers and Tails and What They are Used for, B. S. Bowdish, Suburban Life, p. 244.

ILLUSTRATORS

Ashe, E. M., Ladies' Home Journal, p. 17.
Biggs, Walter, Circle, pp. 234, 235.
Booth, Franklin, Scribner's, pp. 573, 579.
Booth, Hanson, Circle, pp. 236-238; Delineator, p. 407.
Brangwyn, Frank, International Studio, pp. 30-36.
Brehm, George, Ladies' Home Journal, p. 19.
Brett, Harold M., Century, p. 52.
Brooke, Leslie, St. Nicholas, pp. 42, 43.
Browne, Margaret Fitzhugh, St. Nicholas, p. 32.
Campbell, John P., International Studio, pp. 37-42.
Castaigne, Andre, Century, p. 15; Harper's, pp. 818-821.
Chapman, Charles S., Century, p. 34.
Chase, S. M., Harper's, pp. 827, 831.
Colby, W. W., Circle, pp. 241-243.
Coleman, Glenn O., Craftsman, pp. 142-146.
Cootes, F. Graham, Scribner's, p. 565.
Cory, Fanny Y., St. Nicholas, pp. 16, 17.
Craig, Frank, Delineator, p. 403.
Day, Francis, Printing Art, p. 188.
Dillon, C. B., Ladies' Home Journal, p. 13.
Duncan, Walter Jack, McClure's, frontispiece, pp. 78-80.
Dunton, W. Herbert, Harper's, pp. 951, 955.
Eisley, Arthur J., St. Nicholas, pp. 15, 70.
Fisher, Harrison, Ladies' Home Journal, cover.
Flagg, James Montgomery, American Magazine, pp. 18, 19, 27, 31, 135-137; Scribner's, p. 548.
Foster, Will, Delineator, p. 405; Harper's, pp. 943, 947.
Furlong, Charles W., Outlook, pp. 444-448, 450, 451.
Gerome, Jean Leon, Century, p. 78.
Grazebrook, Ellen L., International Studio, p. 55.
Green, Elizabeth Shippen, Harper's, pp. 844, 849, 853.
Gruger, F. R., Century, pp. 121-123, 125-127.
Hambidge, Jay, Century, pp. 93, 95-96; Scribner's, pp. 625, 627, 629, 631, 632.
Hitchcock, Lucius W., Harper's, pp. 867, 875.
Hood, George, Printing Art, p. 180.
Hoskins, Gayle Porter, St. Nicholas, pp. 65, 68, 69.
Karcher, Wilson, Borders and Initials, Delineator.
Keller, Arthur I., Century, p. 100; Delineator, p. 411; Ladies' Home Journal, p. 7.
Kirby, Rollin, McClure's, pp. 73-76.
Kleinschmidt, Carl, Delineator, cover and pp. 372, 373.

LaFarge, John, Century, p. 80.
Levy, Alex O., Printing Art, p. 176.
Leyendecker, Frank X., Century, pp. 64, 66.
Loeb, Louis, Century, frontispiece, pp. 8, 10, 75, 77.
Manley, Thomas R. Outlook, pp. 395, 397, 399, 401.
Masters, F. B., American Magazine, pp. 73, 75, 77; McClure's, pp. 36, 38, 40, 41, 43, 44.
McLennan, Teana, Keramic Studio, supplement.
Meylan, Paul, Century, p. 132; Ladies' Home Journal, p. 9.
Monahan, P. J., Ladies' Home Journal, p. 15.
Monticelli, Adolphe, International Studio, p. 21.
Muller, Charles Louis, Century, p. 82.
Oakley, Thornton, Harper's, pp. 877-879, 881-884.
Oberhardt, William, Delineator, pp. 401, 415; Outlook, p. 457.
Peck, Henry G., Circle, pp. 247, 248.
Pennell, Joseph, Century, pp. 45-48, 50; Harper's, pp. 917-920.
Pratt, Bela L., World To-Day, p. 1188.
Prud'hon, Pierre-Paul, Century, p. 129.
Pryde, James, International Studio, p. 25.
Pyle, Howard, Harper's, frontispiece, and p. 862.
Rae, John, Circle, pp. 231-233.
Riviere, Briton, St. Nicholas, p. 24.
Ross, Gordon, American Magazine, pp. 93-96, 98.
Schabelitz, R. F., American Magazine, pp. 51, 53, 56, 58.
Scherrer, H., St. Nicholas, p. 27.
Schoonover, F. E., American Magazine, pp. 126, 127, 128.
Smith, Howard E., Harper's, p. 890, 894.
Stearns, Fred, House Beautiful, Cover.
Steck, Paul, Century, p. 9.
Steele, Frederick Dorr, Delineator, p. 402; Scribner's, pp. 580-584, 586-589.
Stilson, Wolworth, Delineator, p. 414.
Streeton, Arthur, Craftsman, pp. 157-160.
Sullivan, Edmund J., Delineator, p. 409.
Taylor, W. L., Ladies' Home Journal, p. 21.
Townsend, Harry, Harper's, pp. 905, 909.
Varian, George, American Magazine, pp. 37, 41, 45, 48.
Watteau, Antoine, International Studio, p. 15.
West, Benjamin, Craftsman, frontispiece.
Whistler, J. McNeill, International Studio, frontispiece and p. 19.
Wiles, Irving R., St. Nicholas, frontispiece.
Williams, C. D., Ladies' Home Journal, p. 10.
Winter, Charles A., Ladies' Home Journal, p. 18.
Wright, George, Scribner's, pp. 561-568.
Zurbaran, Francisco de, Harper's, p. 668.

COLOR PLATES

Bed-time Stories, Francis Day, Printing Art, p. 188.
Book Cover Design, George Hood, Printing Art, p. 180.
Cover design, Harrison Fisher, Ladies' Home Journal.

Cover Design, Carl Kleinschmidt, Delineator.
Cover Design, Fred Stearns, House Beautiful.
Cremorne Gardens, J. McNeill Whistler, International Studio, frontispiece.
Fete Champetre, Adolphe Monticelli, International Studio, p. 21.
Geraniums, Teana McLennan, Keramic Studio, supplement.
Illustrations from the pages of George Wright's "Sketch-Book," Scribner's, pp. 561-568
"It was a comrade from his own regiment," Howard Pyle, Harper's, frontispiece.
"L'escarpolette," Antoine Watteau, International Studio, p. 15.
The Cedars, Printing Art, frontispiece.
The Demi-Mondaine, James Pryde, International Studio, p. 25.
The Half Moon on the Hudson, and Fulton's First Trip, Alex O. Levy, Printing Art, p. 176.
The Mother, Louis Loeb, Century, frontispiece.
The Vegetable Market, Cassel, N. France, Ellen L. Grazebrook, International Studio, p. 55.
"They talked it over—with me sitting on the horse," Howard Pyle, Harper's, p. 862.

NOTABLE DESIGNS

Aprons, Ladies' Home Journal, p. 51.
Bookcases, Craftsman, pp. 218-221.
Borders and Initials, Wilson Karcher, Delineator.
Carved Oak Panels, House Beautiful, p. 141.
Carved Settee, House Beautiful, p. 141.
Chair, House Beautiful, p. 142.
Colonial Desk, Craftsman, p. 132.
Copper Smoking Set, Craftsman, p. 216.
Embroidery, Home Needlework, pp. 359, 401, 404.
Filet Lace, Craftsman, p. 208.
Glass Ware, International Studio, pp. 80, 81.
Holiday Announcements, Printing Art, pp. 190-200.
Irish Crochet Lace, Delineator, p. 424.
Japanese Laquer, International Studio, p. xxii.
Laces and Embroideries, Ladies' Home Journal, p. 49.
Leather Bag, Palette and Bench, p. 41.
Metal Bookrack, Craftsman, p. 217.
Monograms (embroidery), Ladies' Home Journal, p. 47.
Pewter Dish and Goblet, Palette and Bench, p. 44.
Pocketbooks, Palette and Bench, pp. 41, 42.
Pottery, Keramic Studio, pp. 142, 144, 146, 148, 158, 159.
Raffia Basket with Cover, Palette and Bench, p. 36.
Silver Utensils, Craftsman, pp. 137, 138.
Sofa Pillows, Circle, p. 271.
Sofas and Settees of the Sheraton Type, Circle, p. 262.
Stencilling, Home Needlework, p. 376; Palette and Bench, pp. 37-40; Suburban Life, p. 247.
Swedish Silver Ornament, International Studio, p. 76.
Teapot, House Beautiful, p. xvi.
Wilkes-Barre Court House Decorations, International Studio, pp. xx, xxi.
Work-bags, Ladies' Home Journal, p. 51.

THE SCHOOL ARTS GUILD

I WILL TRY TO MAKE **THIS** PIECE of WORK MY BEST

OCTOBER CONTEST
AWARDS

First Prize, Book, a packet of "Japanese Birds and Animals," published by The Davis Press, and Badge with gold decoration.

Ella Thorpe, VIII, Easthampton, Mass.

Second Prize, a set of "Old Japanese Designs," published by The Davis Press, and Badge with silver decoration.

Albin Anderson, VII, Rockport, Mass.
Norma Bardon, Jefferson School, IX, Everett, Wash.
Pauline Cooke, Westerly, R. I
Arnold Page, VIII, cor. Lincoln and Drew Sts., Augusta, Me.
Herbert Petzold, VII, 264 Jackson St., Lawrence, Mass.

Third Prize, a copy of "Blackboard Drawing," published by The Davis Press, and Badge.

John Cardoza, 1430 E. Lafayette St., Stockton, Cal.
E. C., 1722 Ricker Ave., Everett, Wash.
Helen G. Deputy, VIII, Glenolden, Pa.
Raymond Forsander, V, Florence, Mass.
Winnifred Ledwidge, II, Niantic School, Westerly, R. I.
Marion O'Connor, VII, 78 Avon St., Lawrence, Mass.
Louisa Pender, VIII, Amesbury, Mass.
Howard Preble, VIII, Steubenville, O.
Philip Readio, VII, Florence, Mass.
Paul Shedd, II, E. Murdock School, Winchendon, Mass.

Fourth Prize, The Badge.

Clara Addenbrook, II, Wilkins School, Swissvale, Pa.
George Alderman, V, Spring St. School, Williamstown, Mass.
Raymond Baldi, VIII, Elm St. School, Westerly, R. I.
Muriel D. Barrett, VI, Summer St., Bristol, Conn.
Helen Bernache, V, Florence, Mass.
Florence Carlstrom, VIII, Emerson School, Berwyn, Ill.
Mildred Charron, VII, Williamstown, Mass.
Sara Chaucer, V, 4123 Central Ave., Sioux City, Iowa.
*Margaret Cochran, VII, 321 Prospect St., Lawrence, Mass.
Rowena Connell, VIII, Winchendon, Mass.
Nancy Currier, VII, Whittier School, Amesbury, Mass.

*A winner of honors in some previous contest.

*Albert DeMars, VIII, Hood School, Lawrence, Mass.
Arthur DeRocco, II, Quarry Hill School, Westerly, R. I.
Augusta Diel, VII, 136 S. Sierra Nevada St., Stockton, Cal.
Victor Doray, VII, Easthampton, Mass.
Louise Enwright, VII, Dominican Academy, Fall River, Mass.
Isabel Falvey, VII, 94 Pleasant St., Methuen, Mass.
Catherine Ferril, III, Central School, Meridian, Miss.
May Franklin, VII, Everett, Wash.
*George Fritz, V, Kennett Square, Pa.
Viola Gove, VIII, 22 Winthrop Court, Augusta, Me.
Carleton Haskell, III, 6 Pine St., Augusta, Me.
Charlotte S. Hassett, VIII, Amesbury, Mass.
Daphne Howard, VII, Elm St. School, Westerly, R. I.
Charles Jordan, VIII, Steubenville, O.
Walter Kleitner, VI, McKelvy School, Swissvale, Pa.
John Lane, VIII, Rockport, Mass.
Bertha Lapan, VI, Williamstown, Mass.
Hazel Larkin, VI, Kennett Square, Pa.
Thomas Lavelle, IV, Willkes-Barre, Pa.
Donald Leigh, VIII, 16 Western Ave., Augusta, Me
Frank Lewis, VII, Rockport, Mass.
Nettie Martin, VI,——
Florence McCann, IV, W. Groton, Mass.
John Morgan, Kennett Square, Pa.
Marion E. Moulton, IV, W. Groton, Mass.
Annie Nelson, III, 1010 Fourth St., Sioux City, Iowa.
Evelyn Newton, IV, Niantic School, Westerly, R. I.
Alice Nordstrom, VII, 609 1-2 Perry St., Sioux City, Iowa
Beatrice Oviatt, VI, Prospect St., Briston, Conn.
Mary Owens, VIII, Jefferson School, Everett, Wash.
Katherine Peabody, VII, 18 Graichen Court, Lawrence, Mass.
Angelo Petrarca, VII, Plains School, Milford, Mass.
Loy Prager, VII, 4343 Van Buren Ave., Sioux City, Iowa.
Charles W. Pyle, IV, Kennett Square, Pa.
*Grace Schilke, VII, Dennison School, Swissvale, Pa.
Gertrude Schonland, VIII, 252 State St., Portland, Me.
Fred Scott, II, Minot, N. D.
Jean Sinclair, VII, 1808 Pearl St., Sioux City, Iowa.
Ruth Stacy, III, Spring St. School, Williamstown, Mass.
William Steinhauser, VI, Emerson School, Berwyn, Ill.
Clare Swaby, VII, 2423 East 1st St., Sioux City, Iowa.
Franklin Sweeney, III, Northampton, Mass.
Mary E. Thompson, III, Kennett Square, Pa.
Robert Thursby, McKelvey School, Swissvale, Pa.
Genevieve Trotta, VII, Plains School, Milford, Mass.
Harrison I. Turner, VII, 20 Gage St., Methuen, Mass.
Elma Walker, I, Kennett Square, Pa.

*A winner of honors in some previous contest.

Alfred Wall, IV, Jefferson St., Augusta, Me.
Myrl White, II, Garfield School, Everett, Wash.
Herbert Doty, High School, Candor, N. Y.
Ruth Haire, X, Newport, R. I.

Special Prize, The Badge.

Mildred Ross, High School, Oneonta, N. Y.
Ernest Williams, VI, Williamson, N. Y.

Honorable Mention.

Eulalia Ahn, Sioux City
Clara Akenson, Sioux City
Florence Anderson, Sioux City
Lenore Barkhurst, Steubenville
Giles Barr, Oneonta
Alvin Beckman, Everett
Mary Bergan, Northampton
Bernice Boyd, Candor
Catherine Brennan, Lawrence
Daisy Brookman, Williamstown
James Brown, Rankin
Ruth Bury, Everett
Mary F. Butler, Glenolden
Ruth Capen, Augusta
*John Champlin, Jr., Westerly
Jennie Cobb, Portland
*Leona Corbin, Easthampton
Kathleen Cousins, Sioux City
Carl Currier, Lawrence
Laura Dahl, Sioux City
Alessandro DeGianantonio, Milford
Edwin Donivan, Westerly
Gertrude Grade, Augusta
Anna Dugas, Winchendon
Elizabeth Dunn, Meridian
Cora Dutton, Sioux City
Edris Folsom, Augusta
Daniel Franz, Lawrence
Ethel Gehrman, Stockton
George Geisser, Lawrence
Laura Girouard, Winchendon
Fred Gleason, Lawrence
Mary Grogan, Stockton
Lillian Hansen, Sioux City
Ethel Hartung, Augusta
Doris G. Hathaway, Fall River
Charles Heid, Steubenville
Marcia Hill, Methuen
Thomas Hinchliff, Bristol
Dixon Hollinshead, Everett
Mildred Horn, Westerly
*Berenice Howard, Swissvale
Mary F. Kelley, Fall River
Eleanore Kester, Kennett Square
Lillian Lawless, Florence
Marion Lee, Swissvale
Charles Lewis, Steubenville
Margaret Long, W. Groton
Wilbur Longdon, Florence
Evangeline McConnell, Minot
William McNulty, Lawrence
Sydney Metcalfe, Methuen
Helen Miller, Kennett Square
Teresa Morrissey, Augusta
Maud Nichols, Williamstown
Hope Noyes, Westerly
*Reginald Oppy, Westerly
Pearl Oyen, Everett
Irene Patnoe, Berwyn
*Abbie Pember, Westerly
Walter Peterson, Rockport
Charles Pinardi, Milford
*Earl Pitney, Berwyn
Raymond Prindle, Williamstown
Louise Randell, Amesbury
Veda Redman, Everett
Elmer Reese, Wilkes-Barre
*Walter Rhodes, Westerly
Ingvar Ringen, Everett
Herman Rippe, Lawrence

*A winner of honors in some previous contest.

*Carl Roode, Avondale
Catharine Sawyer, Winchendon
Elsie Schirner, Lawrence
Willis Schneider, Stockton
Ruth Sharp, Steubenville
Isabel Sherburne, Rockport
Laura Silvia, N. Tisbury
Verna Skang, Minot
Helen Smadler, Swissvale
Clifford Smith, Westerly
Carrol Sovde, Everett
Annie Stanley, E. Bristol
Avery Stickles, Sioux City
Byron Taylor, Everett
Earl Tibbetts, Augusta
*Rachel Webster, Westerly
Parke West, Kennett Square
Floyd Wheeler, Candor
John White, Winchendon
Sarah White, Kennett Square
Jane Hannah Whittaker, Methuen
*Marion Whittemore, Bristol
Elcey Whittington, Kennett Square
George I. Woolaver, W. Groton
Theresa York, Rockport
*Margaret C. Zoudlick, Easthampton
Ida ——, Sioux City

The October drawings were nearly free from incongruities. Paper-cutting was paper-cutting and drawing was drawing,— the two were not confused.

That opaque glazed-mud water color work which results from the use of too much pigment and too little water was "merely scarce to see."

The broad-gray-line folly still persists in some places, supplemented in others by the chewed-up line. The line should, in all cases, express as completely as possible the characta of the object represented. If the object be a fuzzy woolen cap or a Teddy bear, possibly a broad, gray line or a ragged, broken line might serve; but to use such lines to express a papery leaf or a solid waxy apple is like using a coarse-toothed comb to lay a flat wash!

Much time is still wasted on blottesque landscapes. In this work the aim should be definite,—a Sunset in October, "October fields are bleak and sear," "The Last of the Autumn Leaves,"—something requiring close observation and a recognizable purpose. Don't puddle and faddle and call it Aht!

Please remember the regulations.

Pupils whose names have appeared in The School Arts Book as having received an award, must place on the face of every sheet submitted thereafter a G. for (Guild) with characters enclosed to indicate the highest award received, and the year it was received, as follows:

*A winner of honors in some previous contest.

These mean, taken in order from left to right, Received First Prize in 1905; Second Prize in 1906; Third Prize in 1907; Fourth Prize in 1906; Mention in 1907. For example, if John Jones receives an Honorable Mention, thereafter he puts M and the year, in a G on the face of his next drawing submitted. If on that drawing he gets a Fourth Prize, upon the next drawing he sends in, he must put a 4, and the date and so on. If he should receive a Mention after having won a Second Prize, he will write 2 and the date on his later drawings, for that is the highest award he has received.

☞Those who have received a prize may be awarded an honorable mention if their latest work is as good as that upon which the award is made, but no other prizes unless the latest work is better than that previously submitted.

☞The jury is always glad to find special work included, such as language papers upon subjects appropriate to the month, home work by children of talent, examples of handicraft, etc.

☞Remember to have full name and mailing address written on the back of each sheet. Send the drawings flat.

☞If stamps do not accompany the drawings you send, do not expect to obtain the drawings by writing for them a month later. Drawings not accompanied by return postage are destroyed immediately after the awards are made.

☞A blue cross on a returned drawing means "It might be worse!" A blue star, fair; a red star, good; and two red stars,—well, sheets with two or three are usually the sheets that win prizes and become the property of The Davis Press.

Raffia Work

By C. M. SWANNELL

Directions, with diagrams and photographs, for using raffia artistically. The work ranges in difficulty from the simplest forms of wrapping to raffiia embroidery. The book is practical and its designs are original.

CLOTH, 75 CENTS NET POSTPAID, 79 CENTS

Practical and Artistic Basketry

By LAURA R. TINSLEY

The different materials and various stitches used in basket making are discussed. Diagrams and photogaphs accompany the descriptions. There are also chapters on coloring the material, cord work, etc.

CLOTH, $1.00 NET POSTPAID, $1.07

Blackboard Sketching

By MARGARET WEBB

A large number of designs of real artistic merit. Particular attention has been paid to the different seasons, anniversaries and special days. The drawings may be transferred to the board as presented or serve as models for original work.

PAPER, 50 CENTS NET

TEACHERS MAGAZINE THE SCHOOL JOURNAL EDUCATIONAL FOUNDATIONS

A. S. BARNES & COMPANY

NEW YORK CITY

The Modern Sword. An outline drawing in black and red pencil. Appropriate to upper grammar grades.

The School Arts Book

AN ILLUSTRATED MONTHLY MAGAZINE for THOSE INTERESTED IN DRAWING *and the* ALLIED ARTS

HENRY TURNER BAILEY
EDITOR

September to June inclusive $1.50 a year, in advance

VOL. IX JANUARY, 1910 NO. 5

Entered at the Post Office at Worcester, Mass., as second class matter, August 17, 1903

CONTENTS

Children's Classes in an Art School — Frank F. Frederick
Still Life Composition — Elisa Anne Sargent
Accidental Ink Pictures — Samuel E. Gideon
The Recent Exhibition of Early American Art at the Metropolitan Museum — James Hall
Two Centuries of Industrial Art in America — Florence N. Levy
Notan — Schuyler Bull
Annotated Outlines, February, with Illustrations, Reference Material
The Workshop—Woodworking—Skees — Frank G. Sanford
Weaving—Large Bath Rug — Katharine F. Steiger
Needlework—Colonial Costume — Blanche E. Hyde
Metalry—Finger Ring — Augustus F. Rose
Editorial: Dr. W. T. Harris; Pictorial Drawing; Notes — Editor
Helpful Correspondence School Arts Guild The Arts Library
Reliable Advertisements Trade News

Published by THE DAVIS PRESS, Worcester, Mass.

COPYRIGHT, 1910, BY THE DAVIS PRESS. ALL RIGHTS RESERVED.

BULLETIN

MAY THE NEW YEAR PRESENT OPEN DOORS TO YOU. That is the meaning of this Japanese symbol, and that is the wish of The School Arts Book to every one of its subscribers.

The February number will contain, among other good things:

A New Approach to the Problem of Color, by Louis W. Wilson, Art Institute, Chicago.

The Problem of Space Filling, by Alice B. Muzzey, Buffalo, N. Y. First article of a new series on historic decoration.

The Problem of Representation, by Lucy D. Taylor, Boston; and by Mary A. Pearson, North Adams, Mass.

WANTED

Brief Illustrated Articles on the making of novel and beautiful Valentines. Send them to the Editor of The School Arts Book, North Scituate, Mass. Articles accepted for publication will be paid for by the Publishers.

The School Arts Book

Vol. IX JANUARY, 1910 No. 5

CHILDREN'S CLASSES IN AN ART SCHOOL

THERE is nothing new in an art school's conducting classes for children. In many schools it is a source of considerable income. There are two classes for children in the School of Industrial Arts at Trenton.

The children in the elementary class draw leaves and flowers and learn to make orderly patterns some of which are developed into stencils and used in the decoration of pillow tops, curtains, etc. In the Trenton School this class is practically free —an enrollment fee of two dollars being charged for the thirty-four two-hour sessions of the class, not for revenue, but as a guarantee of seriousness and to keep out many who would enter for the fun of it and soon drop out.

The advanced class stands for an original idea in the art education of children in this country which the editor of The School Arts Book wishes me to explain. In doing so I must repeat, in substance, what I have said before.*

Taking all things into consideration it seems to me that our general scheme of art instruction in the public schools is sound (tho we sacrifice quality to quantity), but I feel that there is a weak spot in our scheme in that we do not take care of the specially gifted. The designers, art teachers, illustrators, painters, sculptors, and architects of the future are now with us as gifted children. How can we reach these children to whom an art career is open if their abilities are developed, and give them the special instruction and training that the specialist should receive?

In Europe art education for children is not so general as in this country, but the specially gifted children—those showing

*Educational Bi-Monthly, December, 1907.

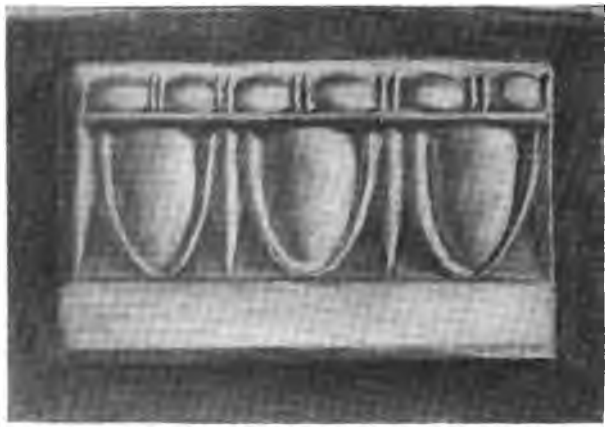
real talent—are given much more thoro instruction than is given in American schools. Authorities there are on the watch for the slightest indication of the "divine gift," and when children possessing it are found they are given every opportunity to develope their talents,—talents that, when cultivated, will do so much to increase the value of the country's manufactures.

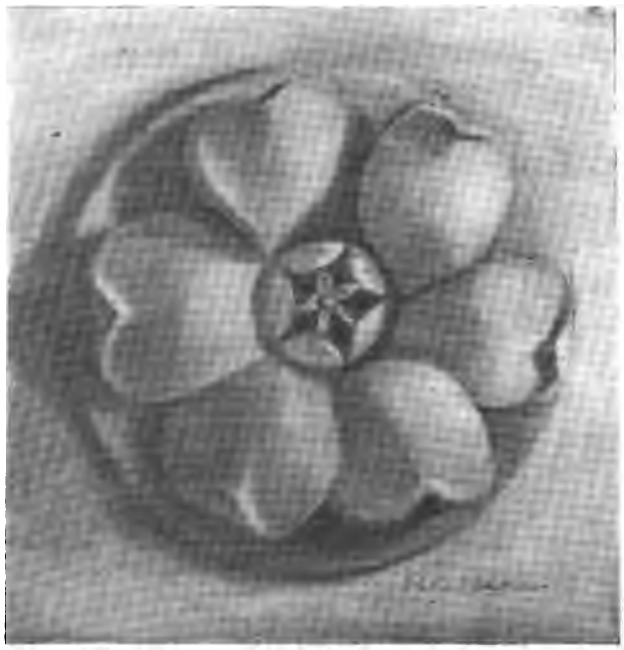
In the schools of Europe it is a common thing to see little boys of ten and twelve working as seriously at art study as youths twice their age in American schools. Here, no one thinks of beginning professional art study at that early age, and the result is that the European art student has many years the start of the American,—a start that can never be made up, for early study in any branch of fine arts is the most valuable.

The public schools cannot be expected to give this special training, but wherever there is an art school there should be provision made for this class of instruction.

The experiment I am trying is this: After the children spend a year in the elementary class, the most serious and gifted are placed in the advanced class where they receive the same careful instruction that is given to children of like tastes and abilities in Europe. They have the same instruction as the older students, tho not in the same classes. It seems to me that American children should be able to concentrate their attention and to work with all the diligence shown by French or German children; and that if they will, or can be induced to do so, we shall be able to develop for our arts and our industries a class of artist-designers similar to the designers abroad who make European manufactures superior to ours.

These children also work two hours each Saturday morning during the school year, and devote their entire time for a year to some one branch of art work.





Light and shade drawings from cast by members of the children's classes, School of Industrial Art, Trenton, N. J.

This year they are drawing groups of still-life—making careful, truthful, painstaking drawings in charcoal that many an art supervisor, who does not know the hard road the successful designer abroad has to travel, would consider hard, tight, and absolutely inartistic. Last year they drew from casts of architectural ornament,with such results as those shown in the plate, page 439. Next year they take up modeling or mechanical drawing or some one of the several different but closely allied branches into which art work may be divided. As a different kind of work is taken up each year, students may enter the class at the beginning of any year, and when the course is completed, in eight or ten years, those who have continued in the class will have had an all-round training in art expression and a thoro grounding in the elements of art, and will be sufficiently accurate and skilful to enter shops, factories, potteries, etc.,—not as designers, of course, but as skilled assistants, able to grow into designers; or, if they feel called to take up the work of the professional artist, they can at once enter the advanced classes of art schools, or, at least, do much stronger work in any class than their classmates who have not received this special training.

FRANK F. FREDERICK

Director School of Industrial Arts
Trenton, New Jersey

Drawing is a good eye for distances; and what is wisdom but a good eye for distances?—Emerson.

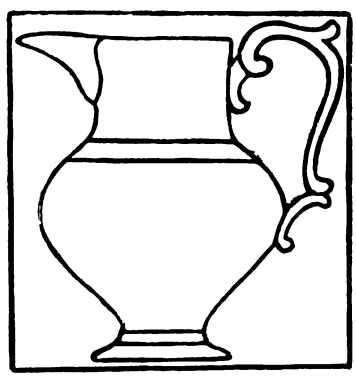
STILL LIFE COMPOSITION

IN the following paragraphs the attempt is made to show what can be done in the study of line relations, tone relations and color relations, in the limited time of the public school exercise in drawing. The idea is, that the simplest materials are just as good as any, that beauty consists (especially in this subject) in true relations, and that there are positive things which can be done on a definite basis of criticism leading to the accomplishment of fine results with an aftermath of real growth and enlightment.

In some cities, notably in St. Louis, objects are drawn relative to an enclosing rectangle in order to secure proportion—as in Figure 1. The special subject in this figure is chosen, however, to illustrate more points than proportion—which is, manifestly, one point. Balance is shown—as it exists in the form, and as to the disposition of the form in the space. While the form in itself has many elements of symmetry (the simplest form of balance) it is so full of rhythmic relations of lines and masses as to make a second consideration of balance necessary —and that a balance of different interests. The variety of line (or mass) in the handle is balanced by the heavy mass of the object. In the original—as generally in these "Colonial" forms—there are bands of blue across the lustre surface. To offset or balance the great amount of line movement in the handle it was necessary to put lines across the large mass, indicating these bands. To review, then, from the start, drawing within the space, with the outline clean and firm about it, makes evident the line relations in the object and the balances of interests in the object as they lie within the enclosure.

With this same drawing another valuable bit of work can be done. The relation of mass to mass and the whole form to the whole space are made evident by painting the drawing in with a flat value of any medium. (One way is to use a lead pencil of good "painting" quality.) The enclosing line should

be sufficiently wide and positive to set off the background spaces around the object. Figure 2 shows a number of things, but especially illustrates the points just made. The handle, neck and spout as the varied masses are well balanced across the



Figures 1 and 2. Objects drawn with reference to the inclosing rectangle. A practice common in the schools of St. Louis.

space (diagonally) by the large mass of the body of the pitcher. The light masses of the background are apparent as well-related large and small spots—the gradation from small to large measures being quite ideal. This well illustrates cutting spaces to produce a good result,—i. e., making both object and background masses equally interesting according to their kind.

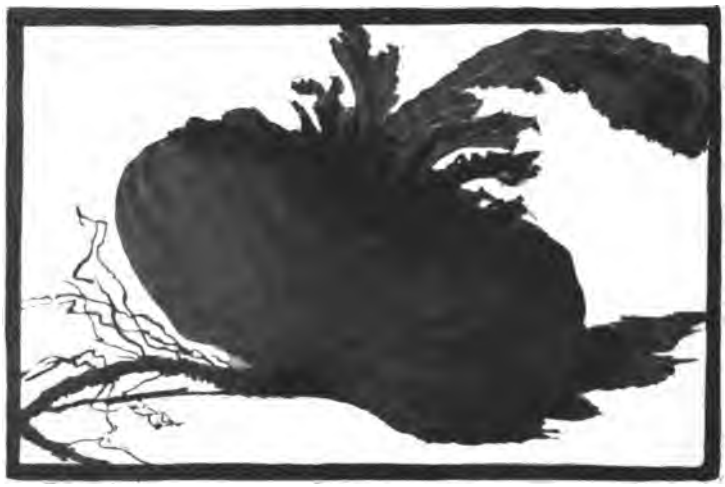
Possibly a word of explanation is due because of the use of a somewhat florid object in this composition. There is so much interest in so-called "Colonial" things, including china, that it seems well to be learning these things at the same time other worthy matters are before us. What would once be called decidedly "frivolous" in pottery forms no longer distresses us—since we are becoming acquainted with such examples in a new way. This particular form has an excellent pedigree—going

straight back to the classic. Its purpose here is to illustrate variety and contrast of shapes and to make unusually good space relations with a single object.

Figures 3 and 4 are two different expressions of the same thing. Figure 3 gives detail, and is useful as a substructure for color drawing on thin paper—preferably Japanese. Figure 4 is a "spotting" of a space—not unlike, in idea, Figure 2. It should be noted, however, that this subject, being a representation of growth (or life) is more satisfying than the pitcher,—and the element of perspective enters to give more feeling or sentiment. Another added interest is the "repetition of the motive" in the cast shadows—making this drawing more truly pictorial than its related predecessor.

The above preliminaries disposed of, we come to the consideration of this humble subject as material for composition. One might go farther and fare worse in the search for a shape, both as to picturesqueness and as to fitness for space division. With what fine poise it sits, yet with what interest it reaches out to cut the margin lines. Counting up the spaces in the background it will be seen that the progression from small to large is there and that large and small are well distributed over the space. There is a sort of sturdy magnificence in this commonplace subject when handsomely set in a shape of proper proportion.

Having set out the idea of relation of subject-shape to enclosed space as a chief proposition in composition, after choosing single objects as shapes we come to creating shapes with more than one object. Some sort of plant and some sort of receptacle is probably the easiest and most pleasing solution of the problem of creating pleasing shapes. There is, by the way, a very beautiful set of suggestions for this work in a book called "The Flower Beautiful", by Clarence Moores Weed. Not to go too far afield, Figure 5 presents the time-honored Chianti bottle with a spray



Figures 3 and 4. Two different interpretations of the same object, one for detail, the other for space relations.

of Virginia creeper. As a shape this is not so unlike the turnip—only it is far more varied in detail and presents more things to the imagination. It is a prettier thing "to conjure with" in moving here and there to break the space limits. Then, too, for the first time the tone suggestion becomes sufficiently varied for comparison and the application of principles. The whole tone study (including, of course, the background) can be stated as a balance of light and dark on a background of middle value, the two balanced values being about equal in contrast to the background and in quantity. The light and the dark masses swing —the former up thru and the latter down thru—the space, moving from side to side in an "occult" balance or species of symmetry.

This group is an interesting and effective color study, also. The bottle is a rather deep green covered with very light straw, striped with bright red and green. The foliage is crimson, red and green,—light underneath and yellowish like the straw. Back of the study was placed a very gray red of a value midway between the lights and darks of the subject. Done in colored crayons on colored paper this is most effective. If a good colored crayon is used, it will be found that the white crayon, if put on before the yellows and sepias and also the crimsons, will bring out the brilliancy of the foliage against the colored ground. Otherwise the colors seem to sink into the background and to lose force. It should be noted that the color scheme runs from green through the yellows and oranges to red and even red-violet,—a splendid rhythm of hue.

One more point is given in composition—as to having the subject cut by the frame. Figures 6 and 7 illustrate the point in hand. In Figure 6 the grouped objects making the interest or shape are, some would say, crowded into the enclosure. There is a distinct reason for this as also in the very strong lines used.

Figure 5. Two renderings of the same subject, one in pencil, the other in water color.

Where so many planes (or distances back from the observer) are used in the group or shape, the eye is deceived as to whether there is a good pattern or interrelation between the lines of the subject and the enclosing line. To force the observation of the relations upon the eye the space is cut down until the two sets of lines overlap each other. Then, if the lines are broad and strong, the eye traces the pattern and finds out errors in relations

that will mar the succeeding results. If the group were placed loosely within the space—that is, without the connection just mentioned, this could not be done. There is also one more point to consider—there must be a connection of all the lines

Figure 6. A group within an inclosing form handled to emphasize the line pattern.

Figure 7. A group handled to emphasize the composition of light and dark.

of the composition in order to make a line pattern. Any surrounding space would be not only empty but destructive of unity of effect, and offensive. In Figure 7, on the contrary, more space is necessary in which to show additional points of (tone) interest in the composition. The values of the objects making the group need opposition and repetition to set out the study. The dark background throws out the light box, light apple and the high lights scattered through the subject. This background also holds in place the shadows and sets the rhythmic order of values in the separate objects of the study—light, middle, dark—in their proper relations to each other and to itself.

In closing it seems well to say a word or two about ways of getting good results. It should be remembered, first of all, that composition is calculation—a weighing and measuring of things that make for beauty. First—consider lines. Use thin

paper and do one drawing over another until the lines move harmoniously. This isn't "freedom" of the greatest latitude—but it is just as free as anyone can be and work up a real result. A full-fledged designer or illustrator does it—and not at all because he "dropped into his profession in a friendly way." Next—consider values. Here again you must "creep before you walk." Fixing the extremes and then the mean is the proposition. Choose the dark and the light you can adhere to, then fix the medium value so it displays the two equally. With the line drawing under a thin paper, lay on the values—each one where it belongs. Figure 5 was begun by laying on the background in an even medium value. The darks were put in and the lights toned down a little from the value of the paper. Soft lead pencil was used. A large lead of the "painting" quality goes rapidly over the surface. If the pencil marks black at its deepest, the range of values is long, as such a pencil runs up to almost white very readily. There are a great many special pencils of this kind to be had and they are so inexpensive as to be within the reach of schools. If the Japanese inks can be had, very charming results can be made with these also.

Color is gradually becoming a working proposition even in composition where things must be, as has already been said, calculated. The medium that allows working up to a final result is undoubtedly best. Also—the medium that can be relied upon for clear representation is important. Students, whether children or adults, differ as to a sense of what mediums will do. One takes to the dry, another to the wet medium. All that can be offered as a suggestion, therefore, is—call for and expect results,—and provide water color or colored crayon according to the power of either in the hands of the pupil to do the work.

ELISA ANNE SARGENT
Somerville, Massachusetts

ACCIDENTAL INK PICTURES*

WHILE acting as Supervisor of Manual Training and Drawing in the schools of a southern city, I was conducting a class in the making of a simple landscape in water color.

During the exercise I noticed that one of the boys was not following my directions. When the opportunity presented itself I stopped at his desk, and saw he had mixed his colors on the palette, instead of applying them separately as I had directed; the result he had obtained was a reddish brown color. When he saw me, he began to apply the brush to his wet paper, which caused the color to run, forming trees and reflections, and making a good sunset tone. I saw the making of a good picture and stopped him from further work. In some accidental way the stroke he made across the paper did not lay the color uniformly, and this, when dry, was a very interesting composition of sky, foliage and water.

What he had done suggested to me the idea of the ink pictures, and when I left the class I began to experiment with inks and various grades of paper.

The purple and blue black inks I found most successful,—on some papers India ink did well,—and the cheap drawing papers took the ink most effectively, as did, also, the Japanese rice paper. Tinted papers are effective, especially the browns. Cream or yellow papers are good for soft daylight pictures, delicate greens and blues for moonlight and water pictures, and pure white for snow scenes.

At the next teachers' meeting I gave a demonstration of my experiments, and with their co-operation secured some

---

*Dear Mr. Editor:

I heartily endorse all you say about the blottesque landscapes but I am sending you, nevertheless, the accompanying article in the hope that it may help some teacher to arouse in her pupils an interest in landscape composition, and in nature itself. I regard the exercise as only for a holiday; but I did get some excellent results from the pupils. They were accustomed to brush and ink in their "ink mass" drawings.

You are at liberty to use the article as you like. Sincerely,

Samuel E. Gideon.

FIG. 1

FIG. 2

FIG. 3

FIG. 4

excellent results from the pupils. At this meeting I gave out the following outline:

METHOD

With pure water in the brush, as if for a water color exercise, wet a surface of about three, four or five inches square. While the paper is moist, not too wet, apply the brush full of ink. The paper must not be worked upon when too wet or too dry, except for certain results. If the ink is applied at the bottom of the outline, tip the paper to allow the ink to run more freely—reverse or flatten again if ink runs too freely, Figs. 3 and 4. If a lake or distant shore is desired, apply the ink by a single horizontal stroke across the paper, Fig. 1. If great distance is desired, apply ink to paper when quite wet or dilute the ink—the nearer the foreground, the stronger the ink.

To obtain heavy foliage, use broad side of brush full of ink, and for a light stretch of beach, use point of brush. For hill or foliage in the foreground, apply ink as strong as possible, Figs. 3, 4 and 7. When the surface, thus treated, is dry, use pen and ink to indicate details.

DETAILS

Distance can be given by a few strokes of the pen in the foreground, suggesting reeds or grass, Figs. 4, 5, 6 and 8; steeples and chimneys behind trees suggest a village, Figs. 5 and 9; while a line, across the distant shore, will separate trees from reflections, Figs. 2, 4 and 8.

TONES

The water in which the brush is washed makes good halftones for skies, brings out white-capped mountains and snow-covered hills, Figs. 7 and 9, and gives moonlight effects.

Leave the white of the paper for high lights and snow scenes.

Bits of color, such as red or yellow, added to a picture, make interesting sunsets, Fig. 6.

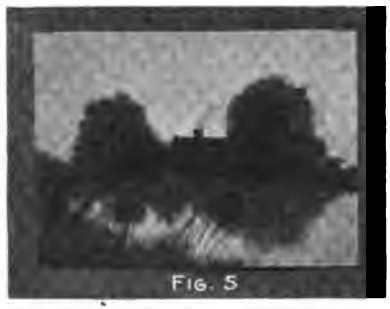
In making the picture there is no need to be careful about the outline—the composition, when dry, can be trimmed so as to give the most pleasing results. Some compositions can be cut, most effectively, into several panels.

Always wash brush thoroly after using.

Literary selections such as the following furnish suggestions for pictures.

"Willow trees and maple trees
And alders by the brook,
When they stand upon their heads
How very queer they look."

From The School Arts Book.



"Hard by, a cottage chimney smokes
From betwixt two aged oaks." Milton.

"The sun upon the lake is low,
The wild birds hush their song,
The hills have evening's deepest glow." Scott.

"Far off, three mountain tops,
Three silent pinnacles of aged snow,
Stood sunset flushed."

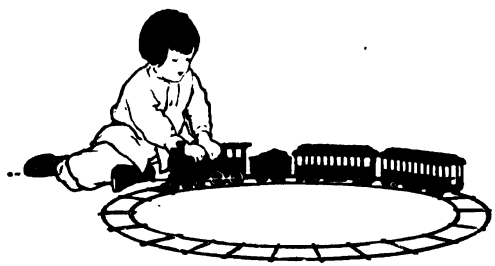
Figures 9, 10, 11 and 12.
The accidental landscape as an element in design

SEP

The illustrations on page 453 show a few of the many possible uses of these landscapes in design. This article is only a suggestion. The exercises I have described encourage observation of nature and originality in expression, and afford the children great pleasure.

SAMUEL E. GIDEON

Massachusetts Institute of Technology
Boston, Massachusetts



THE RECENT EXHIBITION OF EARLY AMERICAN ART AT THE METROPOLITAN MUSEUM

INTRODUCTORY ARTICLE

NO event can be counted more significant among the many that are developing a sane aesthetic taste in America, than the wonderful loan exhibit of this past autumn at the Metropolitan Museum of Art—the Museum's contribution to the Hudson-Fulton Celebration in New York City. The Dutch paintings, all lent by American owners, were a marvelous collection that made New York for the time being, the Mecca of Art lovers. Nowhere else in the world were assembled so many examples of Rembrandt and Hals, not to mention the "Little Dutchmen" and the landscape painters also well represented.

But even more important to the Art student than the unrivaled exhibit of Dutch painting was the bringing together for the first time in a comprehensive way, of noteworthy examples of the more important early handicrafts of America. The exhibition was arranged tastefully as well as chronologically (1620–1825) in three beautiful galleries with textile covered walls of a warm gray. In the first room were shown examples of the simple, sturdy furniture of Pilgrim times and what followed up to the early eighteenth century. The second room (illustration No. 1) containing eighteenth century furniture, including many fine mahogany pieces, recalled stories and pictures of Revolutionary days. In the last room was arranged the work of the late eighteenth and early nineteenth centuries. Illustration No. 2 shows one end of this gallery. At the end is a group of furniture by Duncan Phyfe, made in New York during the first quarter of the nineteenth century. In the centre is a mantle lent by Fulton's great-granddaughter, from a house built in 1798. Over the mantel can be seen Benjamin West's portrait of Robert Fulton, while at the left are two portraits by Fulton himself, of

Joel Barlow of whose family Fulton became a member when in Paris in 1794. At the right of the mantel is a charming head by Thomas Sully, of the artist's sister-in-law, Mrs. Middleton Smith.

Those who could make repeated visits to the exhibition were indeed fortunate, for it is only by looking many times that

1. Eighteenth Century furniture.

the lessons of art are thoroly to be learned. Fortunately, however, a worthy permanent record of the collection has been made in the excellently written and illustrated catalog prepared by Mr. Henry Watson Kent and Miss Florence N. Levy. Here may be traced the changes in types of chairs, and one can see how the simple chest became a chest of drawers, and finally reached its supreme development in the stately mahogany high-

oy. The characteristics of the American types of furniture re shown to follow closely the contemporary English types, both, iowever, being influenced by Continental and Oriental styles.

The beauty of the furniture of the Georgian period must have impressed itself upon appreciative visitors, and forced comparison of the graceful lines of the Chippendale style with

2. Eighteenth and early Nineteenth Century room.

the barren straightness of to-day's "Mission" furniture. No wonder that the movement now among well-to-do Americans is back to the Colonial style of domestic architecture and furnishing. The best art of all countries has been developed slowly from traditional forms, not from conscious striving after originality. Americans then will be wise to hold fast to such good traditions as they possess. This exhibition has given an unusual

3. Pitkin collection of American folk pottery. Lent by the Wadsworth Athenaeum.

opportunity for the study of our best types of furniture and silverwork.

Interesting features of the exhibit were the examples shown of folk pottery made in the late eighteenth and early nineteenth

4. Pitkin Glass. Lent by Albert Hastings Pitkin.

centuries, in various states. Both shapes and colors had an unaffected charm. The same can be said of examples of early glass craft, while the pewter plates and tankards added a quaint and dignified note to the decorative effect of the rooms.

Readers of The School Arts Book are fortunate in having before them the prospect of articles on "The Development of the Chest," "The Development of the Chair," and "The Silver Work of Paul Revere" by Miss Florence N. Levy, who will write with authority as she worked with the Museum for months in arranging for this notable exhibition.

JAMES HALL
Ethical Culture School
New York City

How expressive is form! I see by night the shadow of a poor woman against a window curtain that instantly tells a story of such meekness, affection and labor as almost to draw tears.—Emerson.

TWO CENTURIES OF INDUSTRIAL ART IN AMERICA

I. THE CHAIR

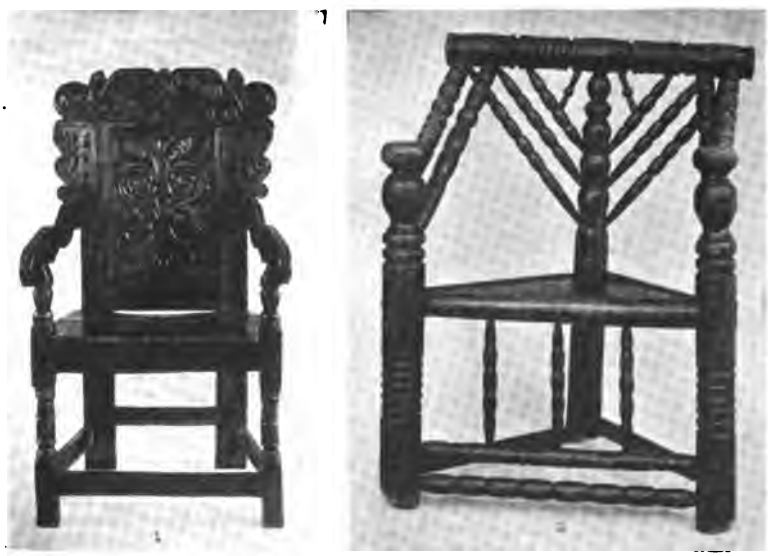
THE life of a people is reflected in the objects of daily use, and the furniture shown in the Hudson-Fulton Exhibit at the Metropolitan Museum in New York had therefore a two-fold interest, historic and artistic. It covered the period of about two hundred years from the days of the early colonists until about the death of Robert Fulton, namely 1815.

The history of American furniture shows a reflection of that of the mother country, England, but also the influence of other settlers such as the Dutch, French, Spanish and Swedish. Some pieces, particularly such serviceable ones as chests and such easily transported ones as chairs, were brought over by the early settlers and later, more or less artistic copies were made here. When greater wealth was acquired the more elaborate pieces of furniture were imported.

Of all the household effects it is the chair which seems to respond most quickly to a change of style. Before the seventeenth century chairs were seen only in the homes of the very wealthy, the ordinary seats being benches or stools. The earliest chairs in general use in England had solid paneled backs, the seats were of wood, and the heavy under-bracing served to keep the sitter's feet away from the damp earthen or rush-covered floors. Few of these "wainscoted" chairs are found in this country, but one of those in the exhibition is shown in our first illustration.

The chair from which the earliest form of the native American chairs were made is the "spindle" or heavily turned type, of North European origin. The President's chair at Harvard University is of this kind and these chairs are therefore usually known as "Harvard" chairs. The lighter forms, with rush seats, became very popular and our third and fourth illustrations

show the arm chair and side chair of this kind. The arm chairs are usually known as "Carver" chairs because one of this type, now at Pilgrim Hall, Plymouth, Mass., is supposed to have been brought over in the Mayflower by Governor Carver.



1. "Wainscot" chair. 2. "Harvard" chair.

In England the change to lighter forms may be said to have begun with the accession of Charles II, in 1660. Foreign influences came thru the fact that this king's wife was a Spaniard while William III, who ascended the throne in 1688, was a Stadtholder of the Netherlands and thus introduced Dutch and Flemish fashions. Illustrations numbers 5, 6, 7 and 8 show these foreign types. The first is an English chair made either

for royalty or as a royal gift (note the lion and the unicorn and the crown) but has all the Flemish characteristics such as the pierced carving, twisted posts, scrolled feet and arms, and the caning in the seat and back to give additional lightness.

3. "Carver" chair. 4. A spindle chair.

The side chair may have been made in this country and is noticeable in that the feet have the scroll turned out, a purer form of the Flemish style than appears in the arm chair. Number 7 shows certain Spanish characteristics such as the shaped molding that forms the cresting and the splayed feet; it is upholstered in old leather.

5. Flemish influence. 6. Flemish influence. 7. Spanish influence. 8. Queen Anne chair. Dutch influence.

It is chair number 8, however, which shows the greatest departure from the early types; a stronger trend toward that lightness which seemed to be the cabinetmaker's highest ambition, but which, carried to the extreme, led to the decadence

9, 10. American chairs, first half of eighteenth century.

of his art. The back here has curved corners (the early ones are all modifications of the horizontal) and descends to the seat in ogee curves which are followed in the solid splat. The seat too, is curved and so are the legs which end in ball-and-claw feet. This type, generally known as "Queen Anne," is of Dutch

origin and the various developments of the English cabinet-maker Chippendale are directly traceable to it.

Illustrations 9, 10, 11 and 12 are American variations of these foreign types. In number 10 the split banisters and open

11, 12. American chairs, first half of eighteenth century.

circles have been substituted for the elaborate Flemish scrolls and caning, while the feet have the Spanish splayed effect. In number 11 the Spanish shaped back is caned and the Dutch cabrioled legs end in duck feet. The last of this group, a type frequently found on Long Island, has a solid urn-shaped

splat topped by a curved cresting, a rush seat and turned legs that end in duck feet.

One of the most interesting exhibits was the pine paneling of an entire side of a room taken from a house built at Coventry, Conn., in 1785. There is the fire-place, a door on the left, and to the right a cupboard, known as a "beaufatt," with shaped shelves and a carved shell-shaped top. The chairs shown also

13. Metropolitan Museum, Hudson-Fulton Exhibition, American section.

date from the latter half of the eighteenth century. Day-beds were made to follow the various styles of chairs as were also children's high-chairs and "round-about" chairs with the curved back occupying two sides of the square seat.

Toward the end of the eighteenth century mahogany took the place of the early oak and the later beech, birch, pine and walnut. The toughness of mahogany and its rich color gave an opportunity for greater lightness and more decoration and the English cabinetmakers, Chippendale, Sheraton, Hepplewhite and others, reveled in its elaboration. Each of these men pub-

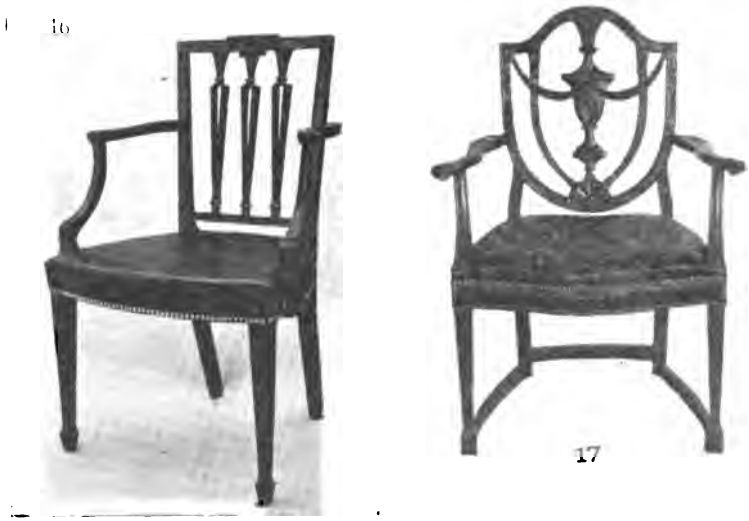
lished a book of designs and these were copied in this country, as well as in England, by more or less skilled craftsmen. Figure 14 shows an early Chippendale chair developed directly from the Dutch type—the solid splat has been pierced in geometric

14. Early Chippendale. 15. Chippendale chair.

designs, the rounded corners of the cresting have been turned up into a bow-shape, the legs are still cabrioled, but all underbracing has disappeared. The next shows the same form elaborately carved, the simple duck feet now being curved into what are known as "French" feet. To Sheraton we are indebted for the return to square backed chairs but they are light, almost frail, and always have the ornamented slats resting on a bottom

cross rail; the legs are straight and often decorated with inlays of light wood on dark. The characteristic Hepplewhite chair has a shield shaped back.

Figures 18 and 19 are the work of New York's most famous cabinetmaker, Duncan Phyfe. His best work dates from the



16. Sheraton style. 17. Hepplewhite style.

first quarter of the nineteenth century and his style shows the influence of the finer forms of the French Empire. A characteristic design is that of the lyre which he introduced into chair backs and the base of tables. His workmanship was excellent and the curves so delicately calculated that they verge on the Greek idea of the entasis.

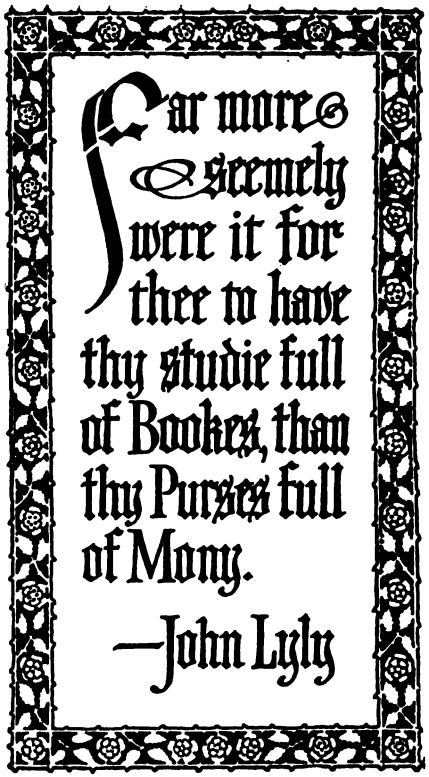
Later we will continue our inspection of the Hudson-Fulton Celebration Exhibit of American furniture by following the development of the chest. For careful study of the subject there are a number of books, among the most important being:—"The Colonial Furniture of New England" by Irving Whitehall

18. Phyfe chair. 19. Phyfe lyre back chair.

Lyon; "Colonial Furniture in America" by Luke Vincent Lockwood; "A History of English Furniture" by Percy Macquoid; "English Furniture" by Frederick S. Robinson. Among books written in a more popular style are several by Esther Singleton, and "Furniture of Our Ancestors" by Frances C. Morse.

FLORENCE N. LEVY
New York

NOTAN



No. 1.

NOTAN is a Japanese term applied to certain elements of Decorative harmony, some of which are well known, and others almost unrecognized. Its most important application and the one which is very little understood, might be translated the harmony of values. It is in this sense that the term is used in this article.

As a subject for teaching it offers some difficulty as it is at present impossible to lay down any very definite rules.*

*Inspection of the examples given will show that the theory "that in a satisfactory harmony the elements will by revolution produce a middle gray" will not hold as the revolution of illustrations 6, 7 and 9 would produce a much darker gray than 3, 20 or 21.

No scale of ten steps or any other number would cover the gradations of No. 14.

It is therefore necessary that the teacher and pupil should recognize the sensations and the quickest way is the critical examination of both good and bad examples in simple values.

No. 2.

2895

No. 3

471

No. 4.

Nos. 5 and 6.

No. 7.

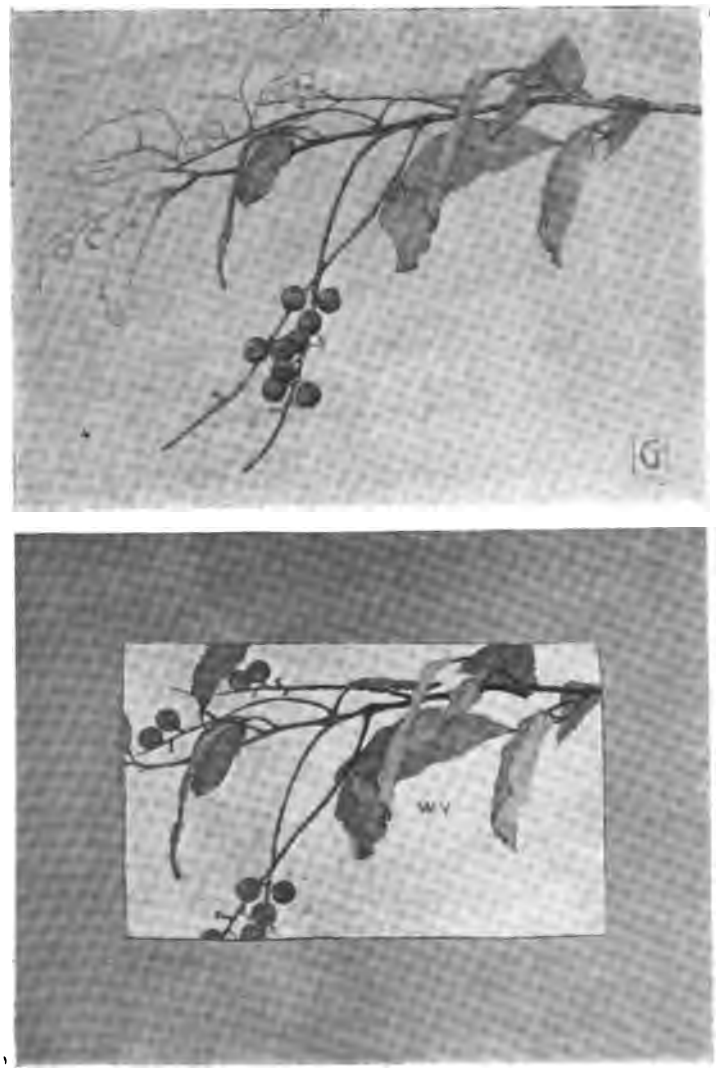
The examples here used were selected from illustrations that on their former appearance in School Arts Book were exceptionally good

No. 8.

No. 9.

examples for the study of good and bad Notan. Numbers 1 to 22 inclusive were very good in Notan although some were deficient in other very necessary qualities.* The others exhibit

*There are at least six forms of harmony that may be identified in decoration; of these Notan is fundamental as it is impossible to make a mark on paper or do anything in this line without bringing values into play. The second harmony sensation is color. While color without value is impossible, yet a beautiful complete color harmony may be produced in a space having but a single value. Line harmony is practically co-ordinate with color but a beautiful line by itself is melodious and not harmonious. The curves so ably treated by Miss Muzzey in The School Arts Book are all melodious; the stem curves in Nos. 15 and 20 are harmonious. Shape and proportion harmonies depend on line in the same sense that line and color depend on Notan. There is still another kind of harmony which I may describe as harmony of treatment. Probably as flagrant a violation of this subject as any is the use of huge cabbage roses in fifteen colors in the parlor carpet.



Nos. 10 and 11.

No. 12.

objectionable Notan very plainly and will be considered individually.

All possible care has been taken in the printing of this issue to retain the qualities which caused the selection of the illustrations used, but too much ink or too little, too light or too heavy an impression may spoil any of the illustrations except the zinc etchings as examples, and even these (numbers 1 and 2) will show the effects due to these variations.

Numbers 1, 2, 3 and 4 will almost surely show the desired effect as should at least 18 out of the 22 good ones; any of the others which do not give analogous sensations may be taken as faulty impressions and ignored.

A good idea of the scope and range of Notan may be gained by the comparison of the solid lights and blacks of the zinc etchings, numbers 1 and 2, with the gradation of number 14 and the filmy lace work of number 20. It must, however, be remembered that Notan is not confined to values of black and white or black and cream alone but that every color harmony, to be satisfactory, must also obey the laws of Notan or value harmony.

I call this good Notan sensation harmony because to me it is analogous to the sensation produced by the sounding of a musical chord; not all

No. 13.

No. 14.

chords are equally pleasing and neither are all the examples I give.

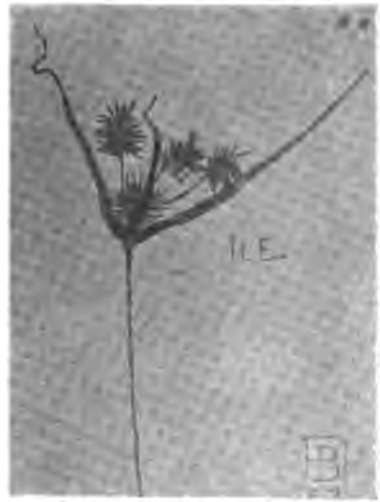
If this analogy is correctly applied other analogies should be recognized.

The succession of different values in numbers 10, 11, 14 and 21 are analogous to an air or melody. Numbers 18, 22 and 23 I should consider to have rhythm. I should say that No. 10 was in a high key and No. 12 in a low key.

There are other musical phenomena that are not agreeable, such as sharping, flatting, false melodic sequence and false modulation.

Numbers 23 to 31 inclusive illustrate the analogous Notan phenomena more or less satisfactorily. No. 15 is the most satisfactory example of modulation. Notice how the contrasting value applied to the center of interest increases the interest. The effect in this example is more or less analogous to the modulation in music from the key of C to the key of E, which gives a much different sensation than the normal modulation of C into F or G.

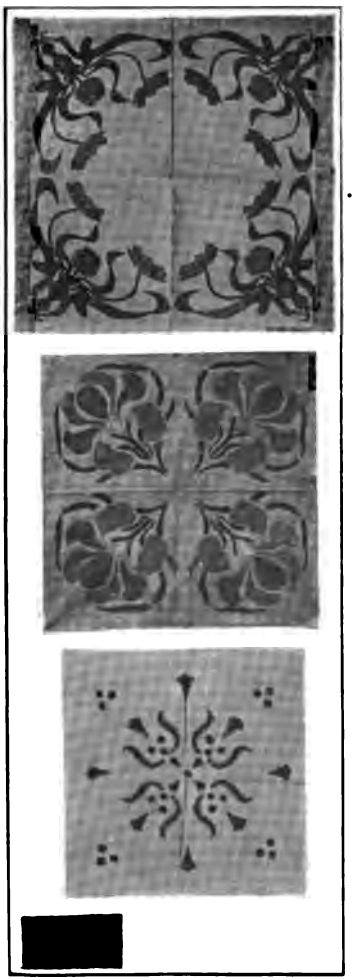
No. 15.



No. 16.

Numbers 17, 18 and 19 are fine examples, the element of contrast in No. 19 is so strong as to be almost painful, yet the values are truly harmonious; the elements are too nearly the same size and feel too much like rifle shots.

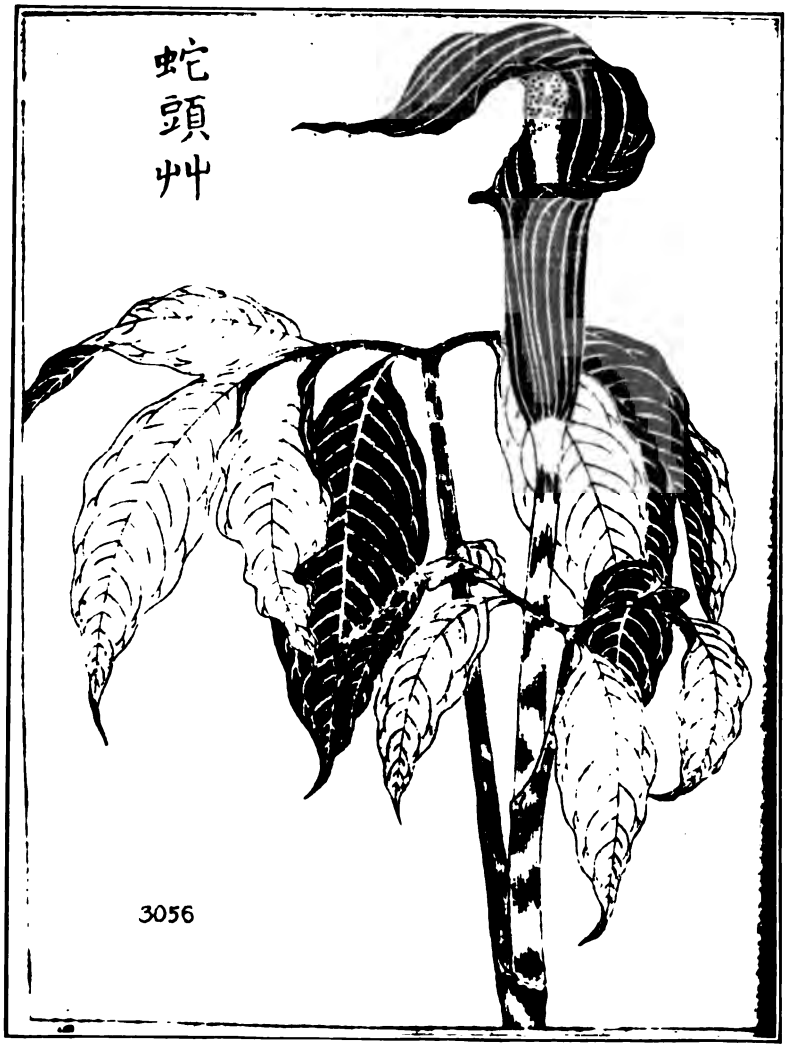
Note the beautiful rythm in the darks and the complex dark melodic shape in No. 22. In my example the pale leaves are just a bit too pale or else the black is too dark.



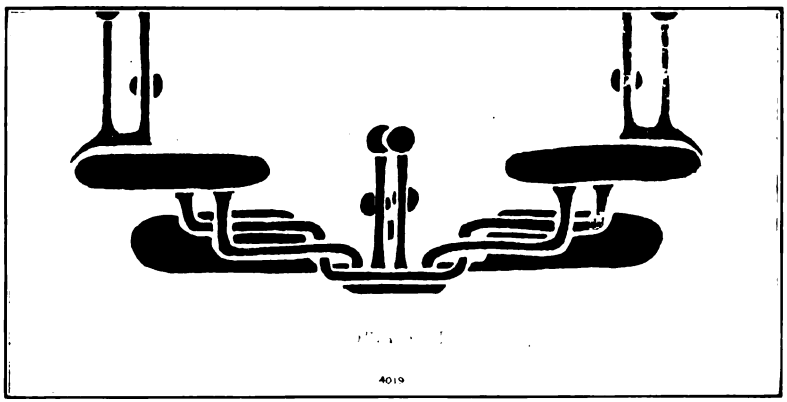
[Nos. 17, 18 and 19.

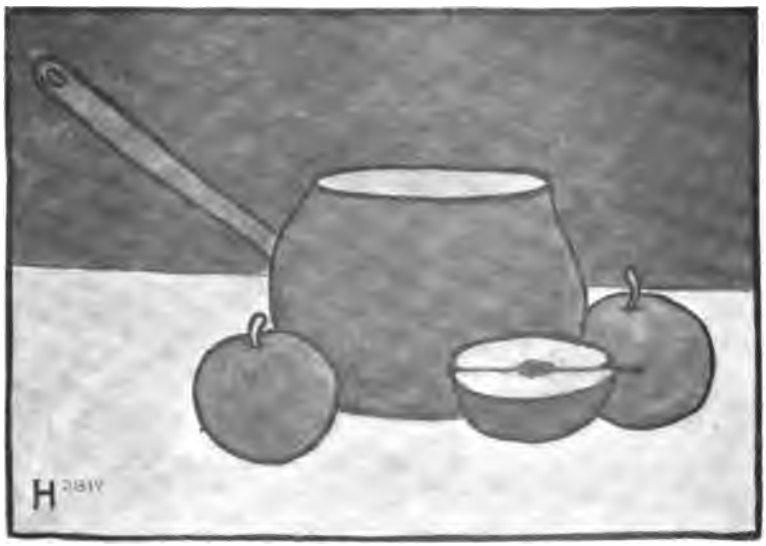
No. 21

No 20.

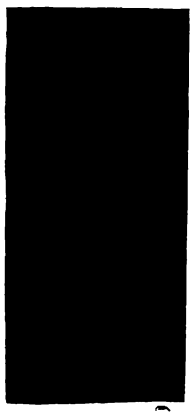


No. 22.





Nos. 23 and 24.



No. 25.

Numbers 4 and 14 were included to show the conformity of natural objects to the laws of Notan.

No. 23, The elliptical horizontal bars are just a shade too dark.

No. 24, The outlines are too pale. The handle of the stew pan is unfortunate as it is not related to any other line of the picture; a great help would be a shadow shape in the background bounded by a line on the left starting from the upper edge of the stew pan, one fourth inch from the right hand side and meeting the top of the picture one inch from the right hand end; the right-hand boundary should start from the edge of the table, one-eighth inch from the apple stem, between stem and stew pan and meeting the top of the picture one-half inch from the right-hand end; this shape would give the reaction line and if made a light shape (same value as the handle) would increase the interest of the composition, or it could repeat the value of the skin of the cut apple with good effect.

No. 25, A feeling of lightness at one inch from the top on the left-hand side demands that it be made either lighter or darker. (This may be a press effect.)

No. 26, False melodic sequence. Either the leaves and stem should have been lighter or the sepals of the flower, darker.

No. 27, My example shows a gradated dark in the lower right-hand corner which hurts; it is probably due to faulty underlay in the press work or faulty reproduction. If it is as dark as the panel, No. 13, try covering a spot one inch square of the lower right-hand corner and note the change in sensation.

No. 26.

No. 27.

Nos. 28 and 29.

No. 30.

No. 31.

No. 28 is a case of sharping; the light note in the reflection is too intense; compare with No. 6 and note the difference in the sensation.

No. 29, Lack of unity or relation. The tree looks as if it had been pasted on. Numbers 9 and 25 are far better in this respect. This would have been good without the single tree. There is value relation between the fence and the tree but the line relations are in violent conflict. If the fence had been in front of the tree it would have been much improved, as the fence with its feeling of movement to the left and backward would have unified the single tree with those in the background.

No. 30, False melodic sequence. The dark tone of the flowers should he darker; there is no discord of values when taken by pairs but it "feels wrong."

No 31, Almost fine, but a jangling discord of values. The throbbing values are not harmonic in their irregularity. This is precisely analogous to the efforts of an untrained performer on a violin, the large value relations are very good but the poor technique is emphasized by the other good qualities. This is the secret why so many good starts make poor finishes; the inaccuracy increases with the diminution of area, and accuracy is a fundamental need in the attainment of harmony.

Some may ask, "Why use the musical terms?" Without them I could not have presented these things except by the invention of new words.

The musical terms have very definite meanings and are comparatively easy to understand by people who have the capacity of becoming artists. Theoretically, the artist should know all things and the nearer he approaches this standard in practice the better the artist.

SCHUYLER BULL
Rochester, New York

ANNOTATED OUTLINES

FEBRUARY

"THERE are three principles laid down by Froebel in regard to kindergarten work which apply equally to all school work, and which I think apply with particular force to the subject of object drawing. The first of these is the principle of self-activity. Any work in object drawing that does not involve the pleasurable exercise of the creative powers of the child is, I think, necessarily poor work and unproductive work. In the second place, we have the great principle of continuity, that is, that a subject which commences or which ought to commence at the beginning of school life shall be conducted day after day, week after week, month after month, and year after year, until that subject yields to the child that power, that exercise, and that discipline which the subject is calculated to yield. And in the third place, there is the great principle of connectedness, upon which Froebel laid particular stress, and which, I take it, is simply the same thing that we know under the name of correlation of studies, the illustration and re-enforcement of one study by all the other studies. I think this principle of connectedness, or correlation of studies, or whatever you choose to call it, has particular force with regard to the teaching of object drawing."

The foregoing is a quotation from an address by the Superintendent of Schools of Greater New York, before the New York Schoolmasters' Association, on the teaching of English. Dr. Maxwell will pardon me for quoting him, I am sure, even tho I have substituted "object drawing" for "English." His words are true in either case, and reënforce with authority what I said last month about the subject in hand. Interest, continuity, connectedness, these must come thru a thotful study of local conditions by the individual teacher. Such an outline as The School Arts Book or any other publication can present can be at best but a suggestion.

PRIMARY

Refer again to the little table of topics given last month, to refresh your memory of the plan for the entire period, three months, devoted to pictorial drawing. Make a better selection of topics, under this plan, if you possibly can. Teach to win!

Plate I. Illustrations of mid-winter games and sports, by primary children. The Snowball Fight, by Douglas Newman, Augusta, Me. The Sleigh Ride, by a boy, Easthampton, Mass. The Snow Man, by Howard Boyd, Avondale, Pa.

FIRST YEAR. Illustrate midwinter games and sports.

From the intensely personal basis of last month's work, we pass this month to the less personal, on the way to that which is least personal, next

month. The progress is from experiences in which the individual child is all, to those in which he is something, to those in which he is almost nothing. Last month his attention was turned within; next month it will be turned to that which is wholly without. This month his attention is to be focused on games and sports in which he may or may not participate. Such drawings as those in Plate I, reveal the mingling of the objective and the subjective in experience—what the child saw and what the child felt. The teacher's part is that of focusing the attention. Let the child draw first as he will, then discuss with him the result; help him to see how to eliminate this, emphasize

Plate II. Illustrations of winter occupations and utensils. On the Ice, by a pupil in Utica, N. Y. The Postman, St. Valentine's, by Gertrude Traynor, Sioux City, Iowa.

that, improve the action here, and the drawing there, until the drawing reflects as perfectly as possible his idea.

SECOND YEAR. (U) Illustrate winter occupations and draw from objects associated with winter.

The emphasis in this grade shifts from objects made intimate by personal relations, to those less closely related to individual experience, to those merely observed or imagined.

The illustrative work differs from that in the previous grade chiefly in the nearer view of things, so that details of form become more important, and clearer images are prerequisite to successful representation. The drawings reproduced in Plate II reflect a sharper memory picture of the winter landscape (especially in the original which shows a twilight effect, in color), details of dress and equipment, action, and method. The work of the teacher is like that in the previous grade. She should lead the pupil to draw the same subject several times, constantly discussing, comparing, and improving his expression. An occasional lesson directly from some object involved in the illustration will help to improve the drawing. The mittens reproduced herewith were drawn in charcoal, from the object, by Howard Vogt, Utica, N. Y. Valentines are good subjects for "busy work."

THIRD YEAR. Make drawings of objects involved in the Washington and Lincoln stories.

In this grade also the progress in delineation is a progress in imaging under the stimuli of objects having first personal relations, and at last only remote impersonal relations. This month the hero stories of American history form the basis. The real object is a help in drawing, for example, the hatchet of young George Washington, but next month the hammer of Thor will have to be "faked." Some of the work this month may well involve the use of copies, for instance, pictures of Lincoln's birthplace, or of the watch seal of Washington containing his "arms" so influential in fixing the form of our flag and other governmental symbols. Plate III contains copies, from third grade language papers and other sources, of symbols appropriate to the work of the month, and from drawings from objects by primary children. Some of them were not originally in silhouette, but are so treated here for convenience in reproduction. An occasional drawing from the object direct, a large object, appropriate to the subject, such as a boy with the flag (by Henry Dubois,

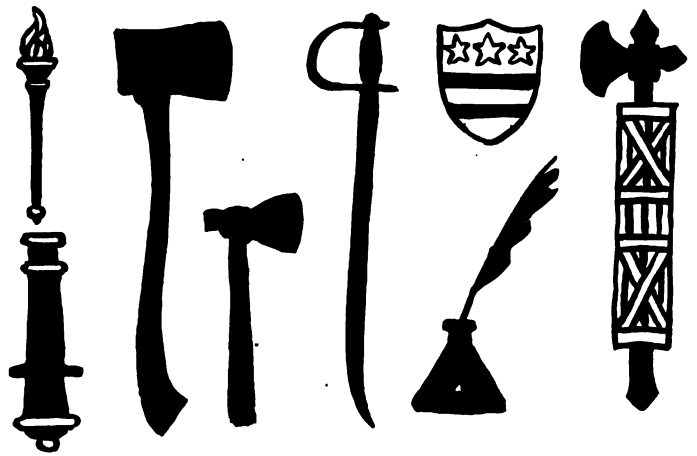


Plate III. Objects involved in stories of Washington and Lincoln. The torch, symbol of enlightenment and leadership; the cannon, symbol of victory in war; the axe of the railsplitter; the hatchet of the truthful boy; the sword of the commander; the shield from the Washington Arms; the quill, symbol of the power of the pen, and of emancipation; the fasces, a bundle of rods having among them an axe, an old Roman symbol of authority and of a strong government.

Hopkinton, Mass.), or a boy in Revolutionary costume, will add to the interest and increase the difficulties which, tackled,—promote power in drawing.

GRAMMAR

In these grades we will proceed with the booklets. They may be made as simple or as elaborate as time and abilities of pupils and teachers may dictate. In a general way the making of groups and the representation of groups is the work of the

month. The work may be planned to conserve Dr. Maxwell's three principles, interest, continuity, and connectedness. The groups may be suggested by games and sports, by daily experiences, school equipment, books, chemical and physical apparatus, etc.; or by the trades and occupations familiar to the children, the kit of the cook, carpenter, grocer, blacksmith, shoemaker, plumber, *et al;* or by the work in nature study, history, or literature. Children (and grownups too) never tire of the rhymes learned in infancy. Mother Goose is a fruitful source book. The following are good motives for groups of objects suitable for drawing in the grammar grades:

"Old King Cole . . . .
He called for his pipe
And he called for his bowl."

"Polly put the kettle on,
We'll all take tea."

"You shall have an apple,
You shall have a plum,
You shall have a rattle basket
When your dad comes home."

"If I had as much money as I could spend,
I never would cry, 'Old chairs to mend.' "

Some of the riddles contained in Andrew Lang's version of the Nursery Rhyme Book might be illustrated:

"As soft as silk,
As white as milk,
As bitter as gall,
A thick wall and a green coat
covers me all."
(A walnut.)

"Long legs, crooked thighs,
Little head, and no eyes."
(A pair of tongs.)

"In marble halls as white as milk,
Lined with a skin as soft as silk, etc."
or
"Humpty Dumpty sat on a wall."
(An egg.)

"Little Nancy Etticoat,
In a white petticoat,
And a red nose;
The longer she stands,
The shorter she grows."
(A candle.)

'Formed long ago, yet made to-day,
Employed while others sleep,
What few would like to give away,
Nor any wish to keep."
(A bed.) (A toy bed may be used.)

"Peter Piper picked a peck of pickled peppers."

"Hushie, my dolly, I pray you don't cry,
And I'll give you some bread and some milk by and by.

"Peas porridge in the pot nine days old."

"Draw a pail of water
For my lady's daughter."

"I had a little husband no bigger than my thumb,
I put him in a pint pot and there I bade him drum."
(Use doll for the husband.)

"Higglety pigglety, my black hen,
She lays eggs for gentlemen,
Sometimes nine and sometimes ten."

Robert Louis Stevenson's Child's Garden of Verses is another good source-book for suggestions: See The Land of Counterpane, the first verse of System, Happy Thought, My Bed is a Boat (especially the third verse), Picture Books in Winter, My Treasures, Block City, The Dumb Soldier, The Gardener (verse four), etc.

In selecting the subject, the principles being studied by the children should be kept in mind. The ten eggs of My Black Hen would constitute a perfect group for the fifth grade booklet, but be entirely out of place in that of the seventh grade, dealing with convergence. In the seventh grade, the toys in The Land of Counterpane would be good subjects; and in the eighth the Old Chair to mend, or the Bed of the riddle.

The illustrations used in this outline are taken from drawings submitted in the monthly contests last year, or some previous year, and are used because in each case they illustrate the principle being studied in the grade.

FOURTH YEAR. (U) Make silhouettes of suggestive groups of objects.

Plate IV. Silhouettes from groups composed of plant forms and appropriate receptacles. Tulips by Arnold Pugh, Westerly, R. I. Dwarf tree by Leroy Annis, S. Braintree, Mass. Hanging pot, anonymous.

To illustrate one kind of group easily made in the schoolroom the drawings in Plate IV have been reproduced. Children delight in groups of this

kind. The surest way to secure pleasing results is to place the group in a sunny window and draw a light window shade over it so that the shadow of the group is cast upon the curtain. The children can then draw from the shadow. Sooner or later, however, they should draw directly from the object. The seeing of the object flat, in mass, is the crux of the whole business! Plan the arrangement of the sheet with reference to its place in the booklet.

FIFTH YEAR. Make pictures of groups of spherical and hemispherical objects.

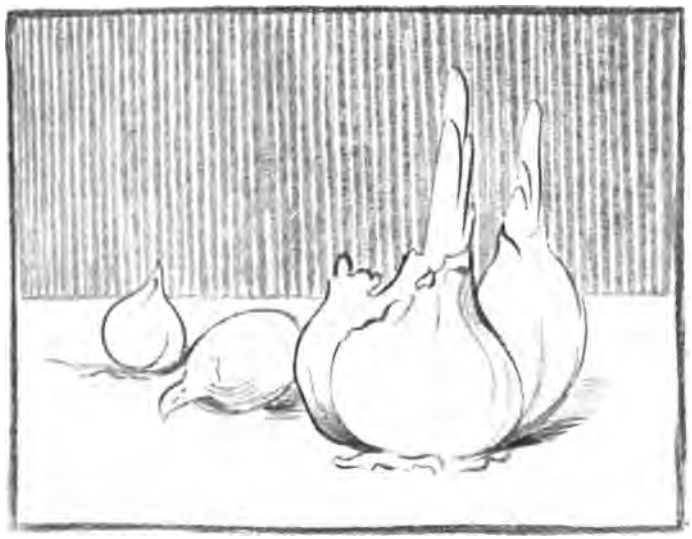


Plate V. The various bulbs are good subjects for fifth grade work and afford a relief from the usual fruits and vegetables.

The hemispherical object involves, of course, foreshortening (the special topic in the next grade), but it may be introduced here as an accessory, for it is hardly more difficult, in its simplest form, than a spherical object having important details. The group reproduced as Plate V was made as an illustration for a nature study paper on Bulbs for Indoor Planting. It is a drawing

which aims to express vividly the FORM, a drawing for the sake of the observer who wishes to know the shape of the object. Plan the drawings to fit into the booklet.

SIXTH YEAR. Make pictures of groups of objects involving foreshortening.

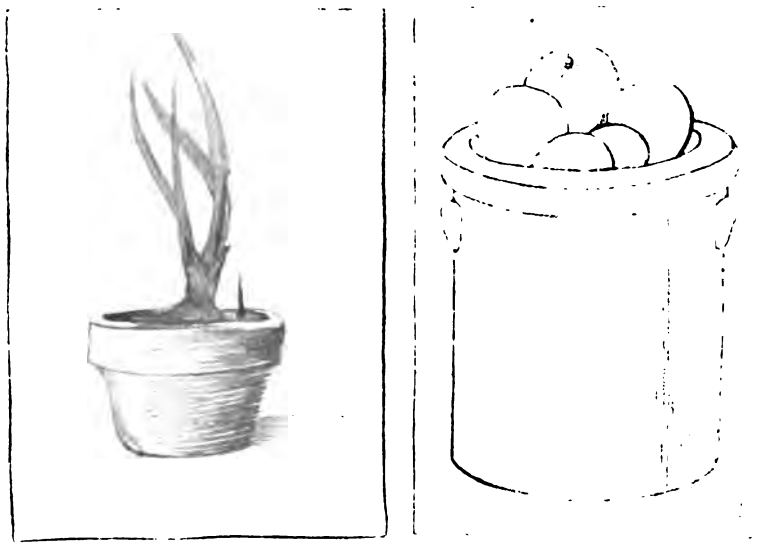


Plate VI. 1, Drawing by Willie Szitnick, Sioux City, Iowa. 2, Drawing by Edith Angus, Everett, Mass. Involving the representation of concentric circles, and of circles at different levels.

The first group in Plate VI, is a most successful rendering of a potted bulb. It was drawn by a boy of fourteen, and is therefore a little more advanced in handling than could rightfully be looked for in a sixth grade.

The other group, the jar of oranges, is an ideal illustration of the work of this grade. It involves the representation of a number of spherical objects (thus reviewing the work of the previous grade), the representation of similar circles at different levels, and the drawing of foreshortened concentric circles. But groups of this sort are easy! Seven-eighths of all the pictorial drawings

submitted in the monthly contests for five years have been from objects and groups of objects involving the foreshortening of circles only. Drawings from foreshortened rectilinear faces involving convergence, —ah, that is another story! There is the entrance to the limbo, above which is written, "Thru me is the way into the doleful!"

Plan the sheets to take their places as pages of the booklets.

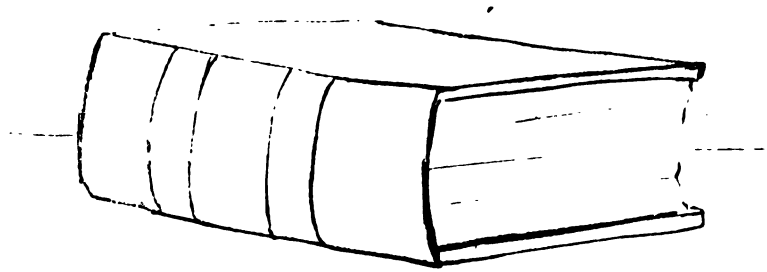
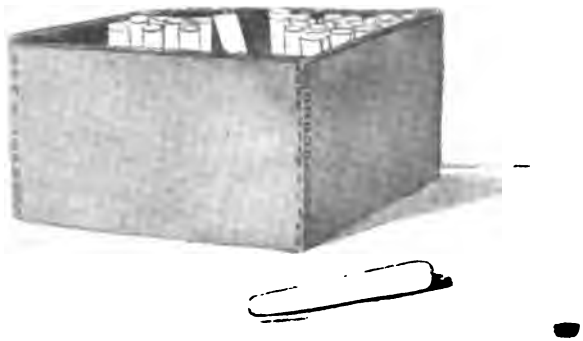


Plate VII. A book drawn by Mildred E. McClayton, Baltimore, Md. A group by Frank Schade, New Britain, Conn. Examples of always available school material.



SEVENTH YEAR. (U) Make pictures of groups of objects involving convergence.

Perhaps a group would be too difficult. If so, take a single object. A book, Plate VII, is a time honored and elusive subject, always available, and

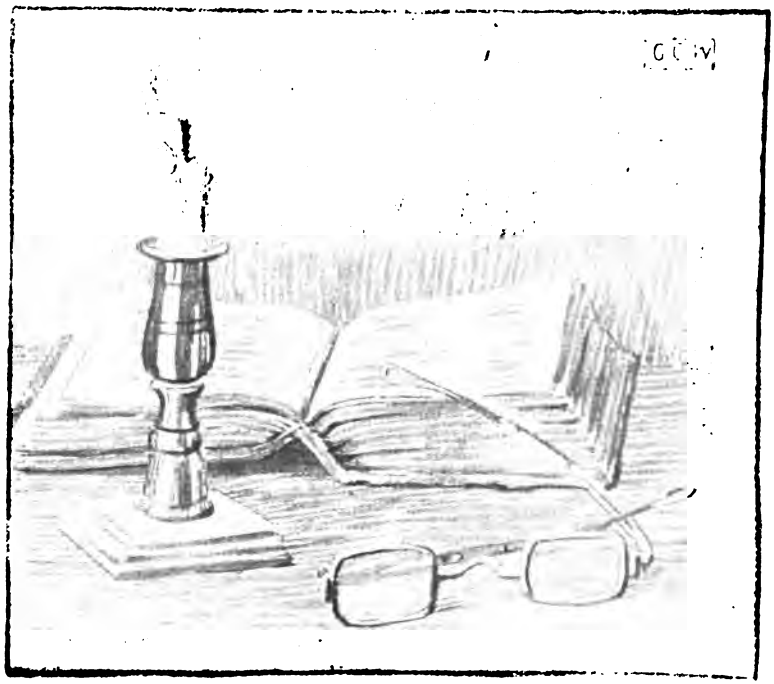


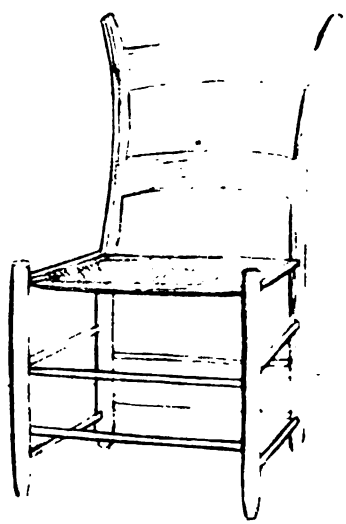
Plate VIII. Pencil drawing from a group of common objects, by G. C. W., school unknown.

too often so unpleasant in its associations that pupils hate to consider even the outside of it. In such cases some Pandora's box would be a better subject. The other illustration is a glorification of the commonplace. In the original the coloring, extremely simple, two flat washes, added charm to the drawing. Whatever the subject, it will have to be drawn and criticised, redrawn and

criticised, and redrawn again before it assumes a form worthy of a place in the booklet. Let the emphasis this month be upon good drawing, correct rendering of the appearance in line only. Next month values and colors will be considered.

EIGHTH YEAR. Make pictures of common objects and groups of objects involving convergence, where X-ray seeing is desirable.

The illustrations (Plate VIII and that of the chair) are examples of such work as well trained pupils of this grade should produce. The standard of the candlestick is located by means of diagonals of the top face of the base. The slant of the oblique edges of the base may be tested by extending the lines to complete a pyramid. In the chair relative positions of the legs, the back, and the rounds are never correctly represented unless the draftsman thinks around and thru the object and all its parts. A large amount of practice in thinking things transparent, in "thinking in three dimensions," as Professor Shaler used to call it, will give pupils a delightful mental gymnastic and vastly increase their power to draw.



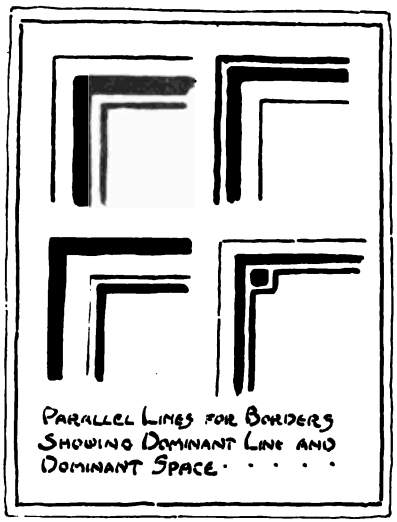
A chair drawn in pencil by Amy Hickox, Stockton, California. As good a drawing as a grammar school pupil, Grade VIII, should be expected to make.

H. T. B.

HIGH SCHOOL

FREEHAND DIVISION

In the opening article of this outline series for high school drawing the proposal was made to divide the work equally between Representation and Design. In the outlines for September, October, November, December and January the emphasis has been distinctly upon Representation. In all of this work the idea of space relations and arrangement should be present, which idea, of course, allies the work to design in a degree. It would be well to consider with the advent of February, the simpler elements of Design quite apart from any connection with Representation.



A pupil's proficiency in design at the beginning of the high school is dependent upon the amount and quality of previous training in the lower grades. This training is so varied that no definitely accepted standard can be assumed. We can make no mistake, however, if the opening work in design at this time leads to a clearer understanding and more intelligent application of simple lines, bands, areas and spaces.

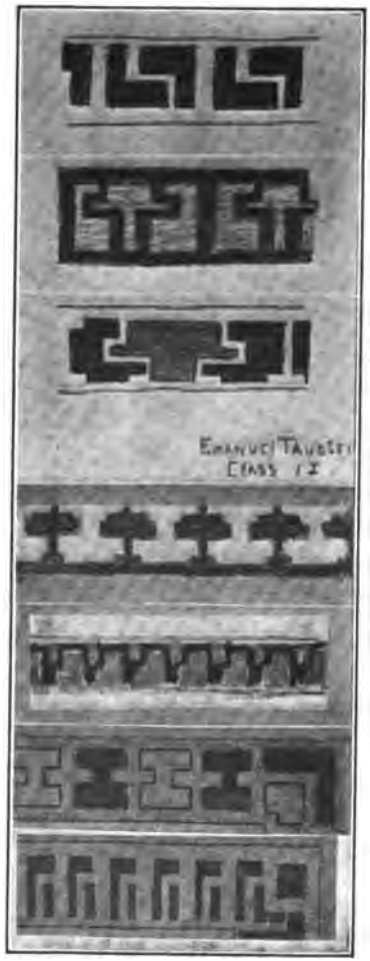
Two principles, or one might say, two parts of one principle, are vital. These are Dominance and Subordination. Nothing beautiful exists in which a dominant feature is not evident and to which all other details are not properly subordinated. If we add to this principle of Dominance the idea of Proportion, based on the ratio of two parts to three, as referred to in former problems, we shall have a convenient pair of tools at our command.

Suppose one takes the problem of a border to an oblong area. The object may be a box cover, a rug, a frame, a panel, or what you will. The emphasis

of the form of the article by the addition of a border line is the first step toward beautifying it. The eye seizes the idea of the object with greater comfort. The addition of two more parallel bands enhances still further this sensation of strength, comfort and sense of comprehension. The question of where to stop in the number of border lines is one not easy of answer. Surely one can-

not continue adding them indefinitely. Here comes in the play of the two principles mentioned. Proportion demands such a happy arrangement of spaces as no tiresome recurrence of parallel border lines would permit. Dominance claims a definite area devoted to one thing to which the rest of the surface shall be subordinate.

In the initial breaking up of a surface into marginal space, border area and central enclosure, the two-to-three method can be applied as in the layouts for perspective sketches described in former months. With increasing skill sizes should be related without constant dependence upon ratios actually worked out.

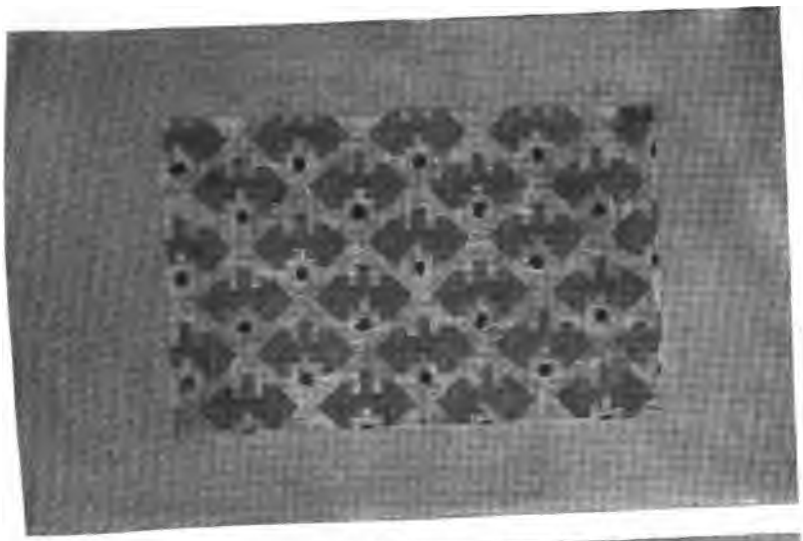


The space allotted to the border is to be filled by three or more straight bands of varying thicknesses. One of these bands should distinctly dominate the other two in size and weight. The spaces between these bands should also vary in width, using the 2 : 3 ratio, one being much larger than any other. The simplicity of these principles is balanced by the effectiveness of results attending their intelligent use. The areas enclosed and the bands themselves offer attractive possibilities for color.

Varying the above problem by accenting the corners is logically the next step in our outline. The corners may be stepped out or in, the bands interwoven, interrupted by blank spaces or by the insertion of other block forms. Bands and spaces of the same size may be tried with the added interest at the corners. From the modification of the corner we may take the middle of the sides as the next point of possible change, when such seems desirable.

Borders formed of bands interrupted at regular intervals either by spaces or inserted elements lead to other types in which the continuous line effects originally started with have entirely given way to a repetition of block units. These may be purely abstract in form or suggest natural forms. The turning of the corners and the centre of each side of the frame are always points of difficulty.

In all work of this kind excellent assistance may be had by using squared paper beneath tissue or rice paper. The squares seen thru the upper sheet



soon suggest to an imaginative boy or girl a multitude of enticing figures ready to be caught and traced.

Block units devised by the squared paper method may be used also as a surface pattern exercise with interesting results. The idea of a border composed either of bands or repeating units assumes an area within it. The treating of this enclosed area by straight lines offers plenty of interesting work. In many cases it is best if left blank. In others a simple device in the centre is adequate. Dividing the area axially and sub-dividing each quarter by two-to-three varying spaces will allow the student to choose a pathway thru his mesh work and compose an interesting effect.

Circular forms are subject to the same general treatment as those above treated. It must be remembered, however, that vertical lines are translated in a circle into radii, and horizontal lines become concentric circles. By making a network of radii and concentric circles, forms innumerable are at one's command, the network, of course, being faintly executed and erased when it has served its purpose.

Design is so dependent upon such simple facts as plain construction, clearly related proportions, and dominance of some one factor to which others are subordinate that problems clearly involving these elements and forcibly showing the presence of beauty despite the absence of floral forms or historic ornament motives are the best for the beginning of the work in the high school.

HAROLD HAVEN BROWN

Stuyvesant High School, New York

MECHANICAL DIVISION

Copyright reserved by the Taylor-Holden Company.

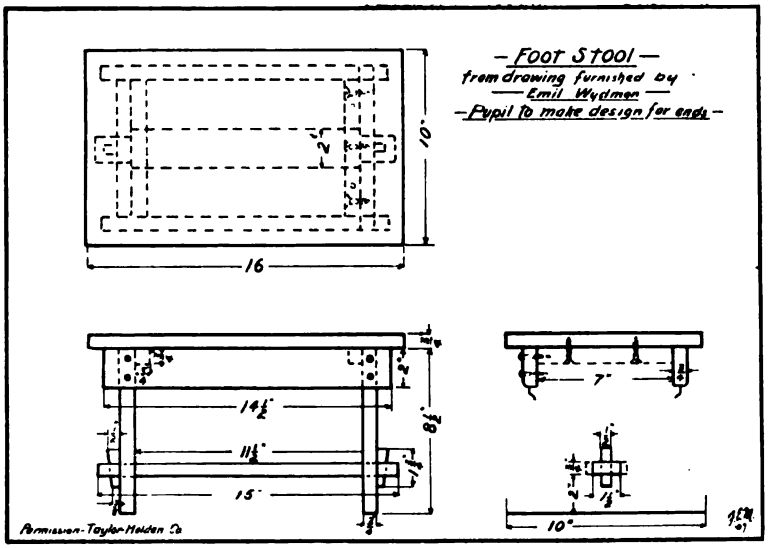
The Equilateral Triangle. Make a study of the equilateral triangle, obtaining definition, altitude in relation to length of sides, its angles, and the geometric construction.

Plate XI. Problems in drawing the equilateral triangle.

1. Construct geometrically, on any line not parallel to the T-square, an equilateral triangle with sides 2 1-2″ long.
2. Construct, using the proper triangle and T-square, an equilateral triangle with an altitude of 2 1-2″.

3. Make front, top and end views and perspective sketch of an equilateral triangular prism.

The Hexagon. Make a study of the hexagon, obtaining definition; length of side; distance between parallel sides; distance across corners; number of equilateral triangles contained



in hexagon; its geometric construction and its construction when inscribing within, or circumscribing about, a given circle using triangle and T-square.

Plate XII. Problems in drawing the hexagon.

1. Construct geometrically, on any line not parallel to the T-square, a hexagon with sides 1 1-4″ long.
2. Construct a hexagon which is 3″ across corners by inscribing it within a circle and using T-square and triangle.
3. Construct a hexagon which is 2 3-4″ between parallel sides by circumscribing it about a circle, using T-square and triangle.

Plate XIII. Make a working drawing of three views of a hexagonal prism. Make perspective sketch of the prism.

Plate XIV. Design Plate. Foot Stool. Make working drawings and perspective sketch. Trace and make blueprints for use in shop. The drawing on page 507 illustrates the construction, and the plate above shows some satisfactory solutions of the problem in designing the ends.

FRANK E. MATHEWSON

Technical High School, Cleveland, Ohio

The painter is only in me and does not come to the fingers' ends.— Emerson.

THE WORKSHOP

WOODWORKING

HAVE you ever paddled a canoe upon one of our northern lakes in the still of the evening, somewhere away from the clamor of human life, where not a sound or movement disturbed, save possibly the distant cry of a loon? And have you felt that nothing in nature could equal it for peace and beauty and absolute pleasure? Let me tell you something. Get or make yourself a pair of skees and after practising by daylight on some gentle slope until you can keep balance down the hill and push yourself forward easily on the level tracts go out some moonlight night when the snow is deep and the air cold, away from the town, thru the second growth out to the crest of the hill and there, where it drops away to the valley, let yourself go. Then write me if you have not found something in beauty, in peace, in true pleasure, to match that other. Ah! the beauty and glory of our northern winter. Old Khayam under his rose tree knew nothing of this.

I suppose that most of my readers have heard of skees and skeeing, perhaps some have become adepts. If so, this article will bring nothing new to you, it is for those who would like to learn, and wish to make their own skees.

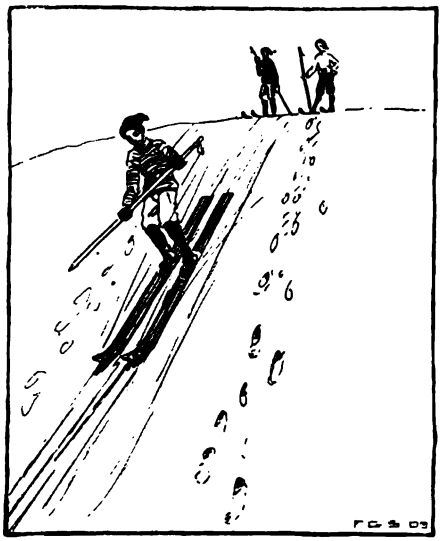
The writer has used skees made from the plan here given, and many pairs have been made by our seventh and eighth grade boys.

This fall we formed a skee club of the older boys, just an agreement to go off together on cross-country trips. No dues, no pins, or officers except a secretary to notify the members of our meets, and an official photographer.

THE SKEE

The best wood available in this section is white ash. I find that for rough hill work a skee 7′ long and 4″ wide is best. I have a 3″ plan but for a first pair 4″ is better. The wood should be 1-2″ thick, straight-grained, free from

knots and checks. Select the best surface for the bottom, the best end for the front. Draw lines on the top of the board as in Figure 1, tapering to 2″ in width at the front to 3″ at the back. The space laid off 16″ long is for the foot block, and the taper at the back starts from that space, Fig. 2. Saw and plane away the wood, rounding the tips with a file. At the place for bending, plane away the wood to 5-16″ thick. This is indicated by dotted lines and arrow point, Figs. 2 and 4.



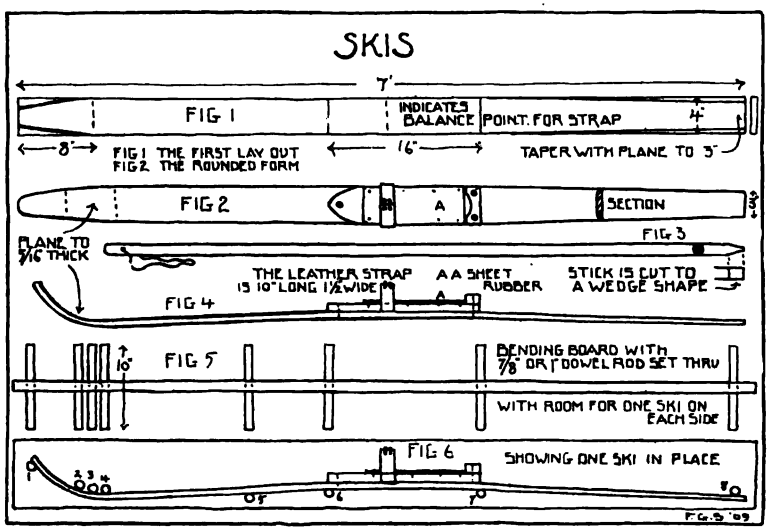
This thinned space should taper gradually so that the end may not be abrupt. The upper edges are then rounded and the corners reduced on the under side (See section, Fig. 2). Find the center of weight, or balance point, for the strap, Figs. 1 and 2. The under side of the skee should be perfectly flat. The foot block may be 15″ or 16″ long, 4″ wide and 7-8″ thick, of soft pine cut to a point in front with saw and plane. Secure stout leather straps (skate straps are no good) at least 1 1-2″ wide and 10″ long, also a belt lace or thong. Punch two holes in each end of each strap. Cut a groove or gain in the under side of the foot block (not in the long board) deep and wide enough to hold the strap. Cut two heel blocks of 7-8″ hard wood hollowed to fit the heel. Pass the strap under the block, loose ends on top, Figs. 2 and 4. Set two screws from above thru the heel block, foot block and skee board, and one near the point, filing both off smooth with the bottom. Set one screw from below thru the center of the strap.

The sheet rubber tacked on top at AA, helps hold the foot steady but is not really necessary. Lace the strap ends over the toe with the thong. This method allows adjustment to different boots.

THE SKID

This may be a piece of hard, tough wood turned round, or a green stick cut in the woods.

Pass a stout cord or belt lace thru a cord at one end, Fig. 3, and cut the other to a wedge. This is useful in cleaning away snow from the heel block.



THE BENDING BOARD

A 1" board, preferably hard wood a little longer than the skee and 8" or 10" wide, is outlined to the desired curve for the skee. Rods 4, 6, 7, 8 are placed thru the board in a straight line, Fig. 5, the others following the curve as shown. These rods should be 7-8" thick at least and of hard wood to stand the strain of the skees in place.

After the skee is formed and put together, blocks in place and finished, boil, steam, or soak in hot water enough of the end to allow making the bend with safety. They must be soaked until thoroly pliable.

A good way to do this is to fill a tub with hot water,—bath tub, wash tub or wash boiler will do,—and leave the skees soaking over night. Cover them to retain the heat. This is the method I have used.

When sufficiently soaked, insert the front end behind peg 1, bend carefully around 2, 3, 4, resting the back against 8. Have an assistant insert 5, 6, 7 about 1″ thru the board. The other skee is placed and these pegs driven thru so as to hold both boards. If the wood be straight and free from knots there should be no trouble. At the least sign of splitting stop at once and re-soak the skee.

Skees should be thoroly dry when taken from the press. There are various ways of bending, such as around a drain pipe in the cellar, or by shutting a door upon them, bracing the long ends with a chair.

Finish by sandpapering and rubbing several coats of oil into the wood.

FRANK G. SANFORD

Oneonta, New York

WEAVING

LARGE BATH RUG

PROCESSES. Use of warp and weft in short lengths, tying and knotting. Fingers the only tools. Coöperative work.

MATERIALS. Kindergarten loom, one pound of roving.

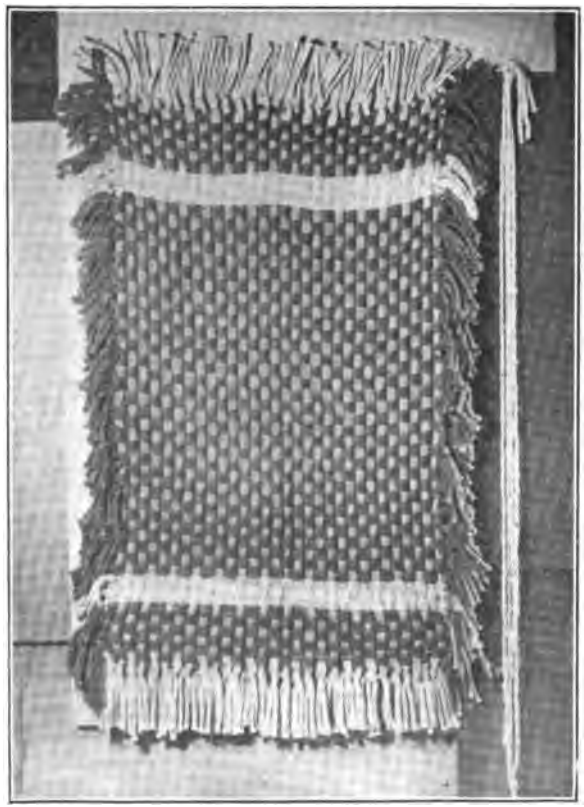
DIRECTIONS FOR MAKING

For this exercise follow the directions given for making the rug in the October number of the School Arts Book. Instead of two strands use four at a time, and in fastening off the fringe at the sides of the rug, place four under and four over the outer strand of warp together, tying with a separate piece eight inches in length. This is a neater finish than knotting the fringe together. A simple border can also be woven into this rug.

Individual rugs, 12″ x 9″ can be made in the same way. Different arrangements of the two colors will give a variety of patterns.

KATHARINE FRENCH STEIGER

Director of Domestic Art,
Rochester, New York



(a) Child's Bath Rug of green and white roving (12" x 24"). Second grade work. (b) First strand of warp.

NEEDLEWORK

A COLONIAL COSTUME FOR THE MINUET

THE MINUET

"Grandma told me all about it,
Told me, so I couldn't doubt it,
How she danced, my grandma danced
Long ago.

How she held her pretty head,
How her dainty skirt she spread,
Turning out her little toes,
How she slowly leaned and rose,
Long ago.

Grandma's hair was long and sunny;
Dimpled cheeks, too,—ah, how funny!
Really quite a pretty girl,
Long ago.

Bless her! why, she wears a cap,
Grandma does, and takes a nap
Every single day; and yet,
Grandma danced the minuet
Long ago.

Modern ways are quite alarming
Grandma says; but boys were charming—
Girls and boys, I mean, of course—
Long ago.

Brave but modest, grandly shy—
She would like to have us try
Just to feel like those who met
In the graceful minuet
Long ago." Mary Mapes Dodge.

In early Colonial times all amusements took place in the home; neighbors co-operated at harvest time in the building of houses and barns, and in fact wherever outside help was needed, and these occasions were often made a time of feasting and merriment for the helpers, for there were very few paid servants in those days, relatives and kind neighbors filling in at any time of extra need.

The men also had their hunting and out-of-door sports, but there was little in the way of diversion for the women until the early part of the eighteenth century. With the growth of towns and villages, there was of necessity the

introduction of some of the old world customs, and among other accomplishments girls were taught dancing, for by this time, some few dancing schools were established, and there are records of a ball given by the Governor of the Massachusetts Bay Colony in 1713, where the dancing began at six P. M. and lasted until three o'clock in the morning. Records also tell us that General Washington and Mrs. General Green at one time "danced upward of three hours without once sitting down," and General Green referred to it as "a pretty little frisk."

It seems strange indeed, to associate such frivolities with the grim details of Revolutionary times, for we think of both men and women of those days as being engaged in more serious pursuits in their duty to their country, and to their homes.

As dancing grew in favor some of the balls came to be very grand affairs for those times, and many of the dances took their names from the battles or the generals of the Revolution.

The first "Assembly" balls of Philadelphia were held in a large room at Hamilton's wharf, and records tell us that maidens came on horseback in full dress. These regular Assembly balls were discontinued during the Revolution, but an interesting account is given by the Marquis de Chastellux of the Philadelphia Assembly in 1780, as follows:—

"At Philadelphia, there are places appropriated for the young people to dance in and where those whom that amusement does not suit may play at different games of cards, but at Philadelphia, games of commerce are alone allowed. A manager or Master of Ceremonies presides at the methodical amusements; he presents to the gentlemen and lady dancers, billets folded up containing each a number; thus fate decides the male or female partner for the whole evening. All the dances are previously arranged and the dancers are called in their turns. These dances, like the toasts we drink at table, have some relation to politics; one is called The Successful Campaign, another Burgoyne's Defeat, a third Clinton's Retreat, etc."

Records of the first inauguration tell us that General Washington's costume at his inauguration ball was "a full suit of black velvet, with long black silk stockings, white vest, silver knee and shoe buckles, the hair being powdered, and gathered together at the back in a black silk bag, tied with a bow of black ribbon. He wore a light dress sword, with a richly ornamented hilt, and often carried in his hand a cocked hat decorated with the American cockade."

Another writer says that "the collection of ladies at this ball was numerous and brilliant, and they were dressed with consummate taste and elegance."

Altho conducted with a certain degree of simplicity, for memories of pioneer days and hardships of war were still fresh, these balls were distinguished by much stateliness and courtesy, due no doubt to the dignity and grace of the President and Mrs. Washington.

The minuet was always the opening feature of a ball, and no beau of the day would have dared enter society unless he could either lead or dance it.

The minuet came into Paris about the middle of the seventeenth century, but it was not a feature of fashionable life until the early part of the eighteenth century, and from then, for nearly a generation and a half, it opened every ball and assembly. In the beginning, it was danced to gay and lively music, but it gradually became more grave, and slower. It was first adopted as a Court dance by Louis XIV, in 1653, and came into fashion in England in the eighteenth century, and from there was early introduced into this country.

A most interesting old book on dancing, published in 1802, describes the minuet as follows:—

"It is performed by two persons, and is either plain or figured. The time of this music is measured by triplets, that is, three movements to each bar of music. These are either open, direct, or circular, and are accompanied with elevation and cadence, there being no leaps or high springs used. Almost all instructors of dancing measure the minuet time in different positions from each other, but with all teachers, the movements of the slow minuet, must consist of the time, the step, and the balance, and what makes these appear elegant is their being accompanied with a complete perpendicular attitude of the body and head, and those motions of the arms and hands, and the expressive cast of features which speak plainer than the language of words. These particular graces of action and expression give beauty and brilliancy to this slow dance, and where these are wanting the performance is dull and listeless, and looses all its charms. It generally begins and ends with a complimentary salute of both persons."

The doll this month shows us a Colonial dame, in a costume which might be used for a fancy dress party, where the minuet is a feature of the entertainment.

The hair should be dressed high in puffs, and well powdered, and black patches worn on the face. A fan, rather small in size, is quite a necessary adjunct of a costume for the minuet.

The dress in the illustration represents one of blue and white figured silk, worn over a petticoat of quilted satin.

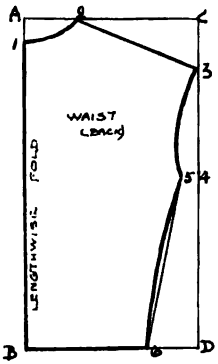


FIG 2

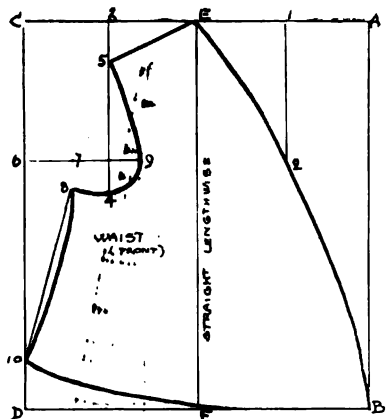


FIG 1

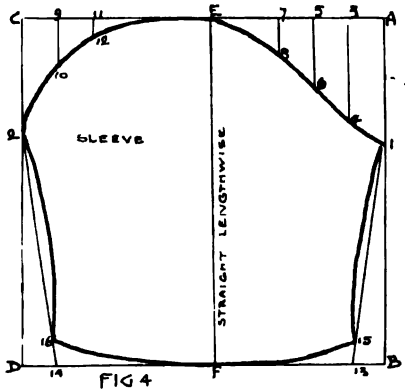
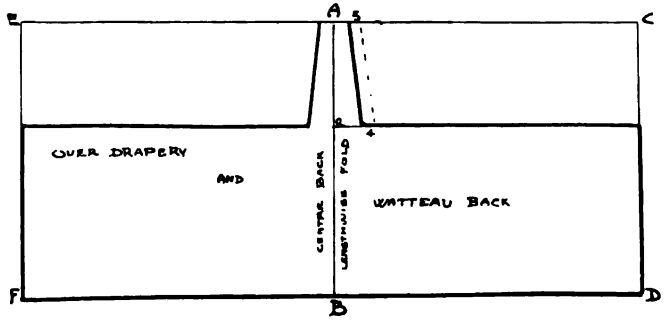


FIG 4

FIG 3

PATTERNS FOR
19 INCH DOLL
SCALE $\frac{1}{2}$" = 1"



SCALE
$\frac{1}{8}$ = 1"

FIG 5

DIRECTIONS FOR PATTERN

WAIST

Front. Paper 5 3-4″ x 5″. Letter as in chart. (Lines AB and CD long way of paper.)

Divide paper into halves by line EF.

Point 1 = 1 1-4″ from A. Point 2 = 2″ from 1. Draw curve of front from E to 5. Point 3 = 1 1-4″ from C. Point 4 = 2 3-4″ from 3. Point 5 = 1-2″ from 3. Draw shoulder line from E to 5. Point 6 = 2″ from C. Point 7 = 3-4″ from 6. Point 8 = 5-8″ from 7. Point 9 = 1-2″ from 7. Draw curve of armseye from 5-9-4-8. Point 10 = 3-8″ from D. Curve for under arm slightly inside line 8-10.

Back. Paper 4 3-4″ x 2 1-2″. Letter as in chart. (Lines AB and CD long way of paper.) Point 1 = 3-8″ from A. Point 2 = 3-4″ from A. Draw curve for neck. Point 3 = 3-4″ from C. Draw shoulder line 2-3. Point 4 = 2 1-4″ from C. Point 5 = 1-4″ from 4. Draw curve for back armseye. Point 6 = 3-4″ from D. Curve slightly for under-arm seam, inside line 5-6.

Vest. Paper 3 1-2″ x 1 1-4″. Letter as in chart. (Lines AB and CD long way of paper). Point 1 = 1 1-2″ from B.

Sleeve. Paper 5″ x 5 1-4″. Letter as in chart. (Lines AC and BD long way of paper.) Divide paper in halves by line EF. Point 1 = 1 3-4″ from A. Point 2 = 1 3-4″ from C. Point 3 = 1-2″ from A. Point 4 = 1 1-2″ from 3. Point 5 = 1″ from A. Point 6 = 1″ from 5. Point 7 = 1 1-2″ from A. Point 8 = 1-2″ from 7. Point 9 = 1-2″ from C. Point 10 = 3-4″ from 9. Point 11 = 1″ from C. Point 12 = 3-8″ from 11. Draw curve for top of sleeve 2-10-12-E-8-6-4-1. Point 13 = 1-2″ from B. Point 14 = 1-2″ from D. Point 15 = 1-4″ from 13. Point 16 = 1-4″ from 14. Draw curve for bottom of sleeve 16-F-15. Curve slightly for seam of sleeve, inside lines 2-16 and 1-15.

OVER DRAPERY AND WATTEAU BACK

Note. The scale of this portion of the pattern is 1-8″ = 1″.

The entire shape of the pattern is represented, but in drafting, only one-half is necessary

Paper 18″ x 16″. Letter as in chart. (Lines AC and BD long way of paper.) Point 1 = 6″ from C. Point 2 = 6″ from A. Point 3 = 1-16″ from A. Point 4 = 1-8″ from 2. Line 3-4 = edge of Watteau plait. Dotted line = underneath portion of plait.

To make. Seam waist together at shoulder and under-arms, and face lace down over fronts of waist, and around neck.

Gather top of sleeve, and try on, after basting seam, in order to fit in close to lower portion of arm, then French seam, put ruffle of lace at lower edge, and insert sleeve in waist.

The pattern of the vest represents the lining portion, over which lace is to be gathered, with a double ruffle of the lace as a heading at the top. Allow one and one-half times the amount in width, in gathering the lace. Fasten to lining front.

To adjust the over drapery, and Watteau back, make the plait and fasten to centre back of waist at neck under lace collar. Turn under edges of top of skirt, portion 1-4, and gather close to edge, and fasten to waist at waist line. Hem fronts, 1-D, and bottom, D-B. Adjust waist and drapery over quilted petticoat, which is made straight and full, (one breadth of material for the doll's costume, and to the ankles in length) and tack drapery to petticoat, high on hips at each side of front and back.

To make costumes in a ten or twelve year size, these dimensions may be multiplied by three.

BLANCHE E. HYDE

Director of Household Economics
Newton, Massachusetts

METALRY

FINGER RING

Our problem for this month is the making of a ring. The size of the ring must first be determined. This is found by measuring with a narrow strip of paper around the finger on which the ring is to be worn. When this strip of paper is straightened out it will give the length of the metal needed for the ring. Usually a precious or semi-precious stone is made the central feature of the ring. As the size of the stone will determine the width of the ring at the top it is necessary to know this at the beginning. A variety of methods

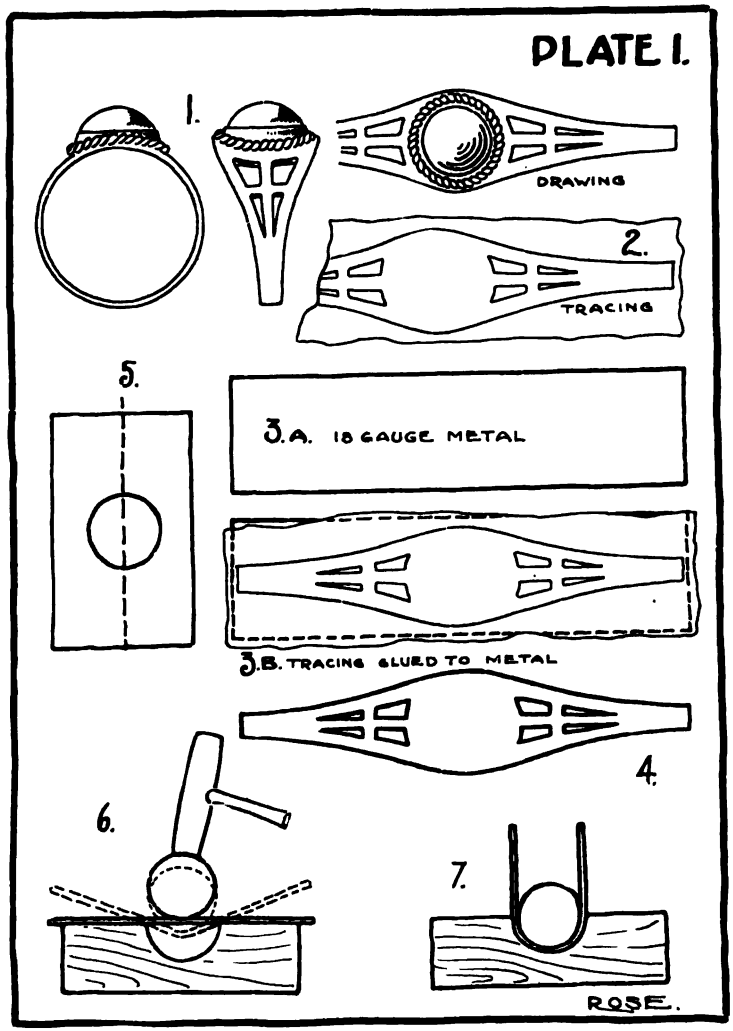


PLATE I.
1.
DRAWING
2.
TRACING
5.
3.A. 18 GAUGE METAL
3.B. TRACING GLUED TO METAL
4.
6.
7.
ROSE.

are used in fastening the stone to the ring, which are called settings. The simplest form known as a cup setting will be employed in the ring here illustrated. Now knowing the length of the metal needed and the size of the stone and the kind of setting to be used, a drawing of the design on Plate 1, Figure 1, is necessary. Then make a careful tracing, Fig. 2, from the drawing and glue it to the surface of the metal, Fig. 3, A and B. For the ring here illustrated, No. 18 gauge sterling silver is used 2 3-8″ long and 9-16″ wide. After the glue is thoroly dry it will hold the tracing firmly in place. A small drill, No. 60, is used to make openings thru which the metal saw is placed. A No. 00 saw is needed for this problem as the openings are quite small in places. Saw as closely to the line as possible being careful not to cut into it. After the openings are sawed out, Fig. A, file them true with the needle files. In addition to the files we already have, a square and a knife edge needle file 4 1-2″ long are needed to finish the small openings. Next cut the metal the required length and file the ends square. When the filing is completed and all rough edges are removed it is then bent into shape. To do this take a 3-4″ bit and bore a hole into a piece of wood about 2″ x 3″ x 2″ as shown at Figure 5. Saw thru the middle of the block on dotted line. Take a piece of 5-8″ dowell or a piece of an old broom handle about 6″ long and placing the metal over the block as at Figure 6, strike the upper part of the dowell with the mallet, driving the metal into the form as at Figure 7. Then striking on the upturned ends as at Figure 8, first on one side and then on the other, gradually bring them nearer together as at Figure 9, and continue till they touch. Use a piece of binding wire to hold the ends in contact while they are being soldered, Fig. 10. After coating the joint with borax and applying a small piece of solder at A, place on the charcoal block for soldering.*

The bezel is next made from No. 24 gauge silver and for this ring a strip of metal 1 1-4″ x 1-4″ is needed, Fig. 11. After cutting the strip the right width it is bent to fit the stone, cut the right length, and soldered. Now as this bezel is to fit a convex surface some filing is necessary to make a good joint, Fig. 12, A. After fitting the bezel perfectly to the top of the ring solder in place as at Figure 13. The twist shown in the design, Fig. 1, is next made. Take a piece of No. 24 gauge silver wire about 12″ long, double it twice and place one end in the vise; with a nail or anything that will serve the purpose, twist the wire as shown at Figure 14. After twisting it from one end to the other, remove it from the vise, coat it with borax and place it on the charcoal

*See November Workshop.

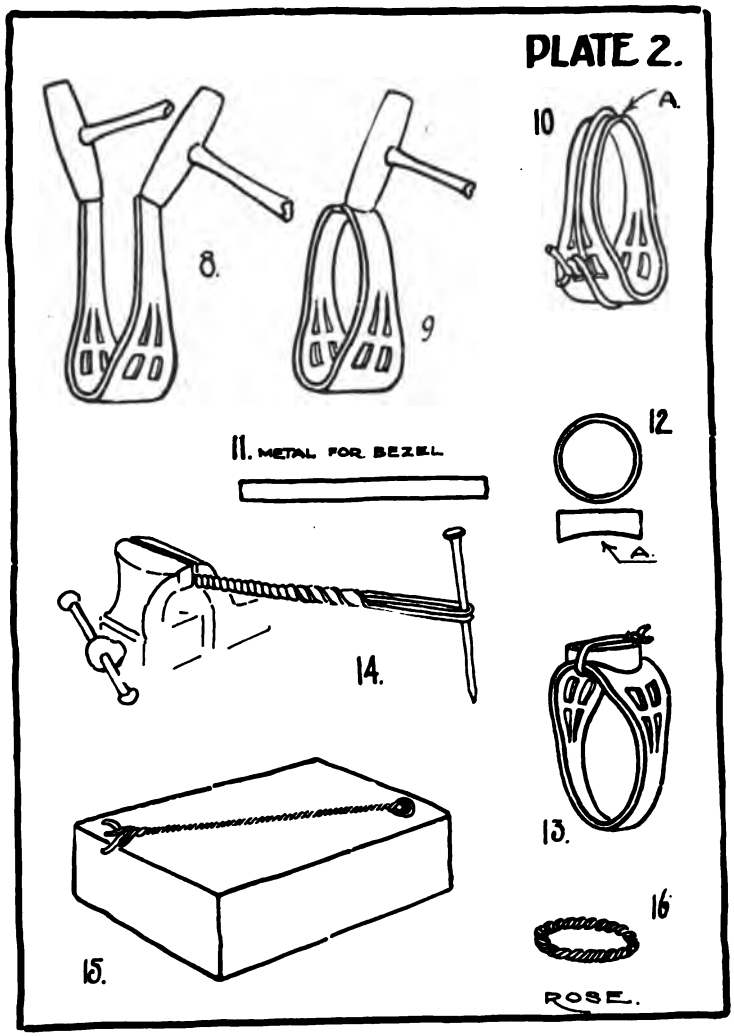


PLATE 2.
8.
9
10
A.
11. METAL FOR BEZEL
12
A.
14.
13.
15.
16
ROSE.

block, Fig. 15. Put three or four small pieces of solder at equal distances along the wire and heat to the soldering point allowing the solder to run along the wire. This is done to hold the different strands together so that they will not separate when cut. When this has been done bend the wire about the bezel to get the required size and then cut and solder the ends together, making a ring as at Figure 16. A little filing may be necessary at the joint to work the ends together. Now place it over the bezel as shown at Figure 1, and solder in place. The ring is next pickled to clean off borax about the soldered joints. The bezel is filed to the right height and the thickness of the edge reduced and the stone set. See November Workshop. After setting the stone, fine emery cloth, tripoli, and rouge are used to finish the ring. If desired, it may be oxidized. See October Workshop.

AUGUSTUS F. ROSE

Boston, Massachusetts

MATERIALS A semi-precious stone, a piece of sterling silver, No. 18 gauge, 2 3-16" x 9-16", a piece of sterling silver wire, No. 24 gauge, 12 inches long, and a piece of sterling silver, No. 24 gauge, 1 1-4" x 1-4".

TOOLS In addition to our present equipment the following tools will be needed for this problem: A 4 1-2" square needle file, a 4 1-2" knife edge needle file, and a No. 60 twist drill.

To enable those interested in this problem to get the necessary tools and materials, Mr. Rose will send them as specified above to any address on receipt of postal money order for $1.25 if ordered together. If ordered separately 85 cents for materials, and 40 cents for tools. All correspondence to Mr. Rose should be addressed to 14 Woodbridge St., Cambridge, Mass.

HELPFUL REFERENCE MATERIAL

FOR FEBRUARY WORK

Illustrative Drawing

Primary Illustrative Drawing, Jessie T. Ames, Book, March 1905. Illustrative Drawing, Frederick Whitney, Council Year-Book, 1902, p. 92. Graphic Expression in Childhood, Julia C. Cremins, Council Year-Book, 1903, p. 46. Primary Drawing, Walter Sargent, Council Year-Book, 1904, p. 37.

On Arranging Groups

Relationships in Grouping, Frank A. Parsons, Book, February 1905. Examples of Groups, Book, Outlines for January and February each year. Pictorial Composition, Henry T. Bailey, Council Year-Book, 1902, p. 100. Pictorial Composition, H. R. Poore. Prang Text Books, V, p. 45; VI, p. 46; VII, p. 46.

On Drawing Groups

Drawing of Groups, Fred H. Daniels, Book, February, 1906. Tests and Aids in Appearance Drawing, Harold H. Brown, Book, January 1905. Still Life in Water-colors, Mary B. Jones, Book, February 1904. Water-color over Charcoal, Dora M. Norton, Book, January 1905. Drawing from Groups, A. K. Cross, "Freehand Drawing," p. 9. See also Mr. Cross' "Light and Shade." Prang Text Books, Sections, "Beauty in Common Things." Freehand Perspective and Sketching, Dora Miriam Norton.

Technique

Pencil Sketching from Nature, Dr. James P. Haney. Pen Drawing, Charles D. Maginnis, Bates & Guild Company.

Luck does not guide the artist's hand
To paint those forms that live for aye;
Nor cause the sculptor's work to stand
Deathless in marble, bronze or clay.—Porter.

Ring in the valiant man and free

JANUARY

TIME IS

Too Slow for those who wait,
Too Swift for those who fear;
Too Long for those who grieve,
Too Short for those who rejoice.
But for those who love
Time is not.
Old Sun Dial.

1 SAT **Murillo b. 1618.** "The painter of the Conception." He immortalized the soft brown beauty of his native Andalucian type.

2 **Granada** Wrested from the Moors in 1492. But they still make willing captives in the fairy palace, the Alhambra and the gardens of the Generalif.

3 MON

4 TUE So to live as to get the most out of life, is not that the problem which each one of us has to solve?
Wm. M. Conway. He said also a builder.

5 WED **Francia d. 1518.** Goldsmith and painter, founder of a school in Bologna, and friend of Raphael.

6 THU **Twelfth Day-Epiphany.** **Schliemann b. 1822.** **Doré b. 1833**
"We have seen his star in the east and are come to worship him."
Brought ancient Troy to light, with Tiryns, Mycenae, and Orchomenus.
An illustrator whose imagination kept pace with a Dante or a Poe.

7 FRI

8 SAT **Giotto d. 1337.** **Alma-Tadema b. 1836.**
Florentine painter and architect. He breathed the Gothic spirit into Byzantine art, and became the Father of Modern Painting.
Born in Friesland, lives in England, pictures Greece and Rome.
* The most perfect artist is he who with the most unerring certainty selects from the infinite complex of Nature what for him are the elements of beauty and depicts them & them only with strict veracity and least expenditure of means.

9

10 MON

11 TUE **Ghirlandajo** – the Garland-maker – **d. 1494.** **Wyant b. 1836.**
Master of Michaelangelo. Painter, goldsmith and mosaicist. He called mosaic "painting for eternity."
"for having cut out and worked in gold & silk two covers." etc.
An American landscape painter. "One of the strongest" says Van Dyke.

12 WED

13 THU **Edmund Spencer d. 1599.** — exclaimed "O, how can beautie maister the most strong."

14 FRI Epitaph of a Craftsman: "Here lies **Barbara Uttmann,** died 14 January, 1575, whose invention of lace in 1561 made her the benefactress of the Hartz Mountains."

15 SAT ——— On this day, 1398, Emelat de Rubert, an embroideress of Paris, received her pay from the Duke of Orleans.

16 **René the Good b. 1409.** As King at Aix, fostered agriculture, Provinçal song, and all the arts.

The larger heart, the kindlier hand

JANUARY

He giveth snow like wool; and scattereth the hoar frost like ashes. He casteth forth his ice like morsels: Who is able to abide his frost?

Psalm 147

17	MON	◐	THE spacious firmament on high With all the blue ethereal sky And spangled heavens, a shining frame, Their great original proclaim. *Joseph Addison* The stars of night Will lend their light Like tapers clear Without number. *Herrick*
18	TUE	◐	
19	WED	◐	Come see the Northwind's masonry. Out of an unseen quarry evermore furnished with tiles, the fierce artificer carves his white bastions with projected roof. *Emerson*
20	THU	◐	——— St. Agnes' Eve — Ah, bitter chill it was! The owl, for all his feathers, was a-cold. *Keats*
21	FRI	◐	**Eugene Carrière b. 1849.** French "The modern Madonna painter," Von Mach says: He threw a veil over actuality.
22	SAT	○	**Andrea del Sarto d. 1531.** Florentine. "The Faultless Painter." Gives most delight through his color.
23		○	O world, as God has made it, all is beauty: And knowing this, is love, and love is duty. *Browning*
24	MON	○	**John Mac Gregor b. 1825.** Philanthropist and quaint traveller.
25	TUE	○	**Robert Burns b. 1759.**
26	WED	○	"The rank is but the guinea stamp; The man's the gowd for a' that." God makes sech nights, all white and still, fur'z you can look or list'n, Moonshine an' snow on field an' hill, all silence an' all glisten. *Lowell*
27	THU	◑	**Viollet-le-Duc d. 1879.** Architect and recreator of buildings.
28	FRI	◑	The frost performs its secret ministry. *Coleridge*
29	SAT	◑	**William Sharp b. 1749.** One of the very best line engravers of England.
30		◑	Now stir the fire, and close the shutters fast. *Cooper*
31	MON	◑	In winter I get up at night And dress by yellow candle light. *Stevenson*

Every pine and fir & hemlock
Were ermine too dear for an
And the poorest [earl,
twig of the elm-tree
Was ridged inch deep
with pearl.
Lowell

Threaded many waterways from the Jordan to the Zuider Zee in a Rob Roy canoe.

Glitter of ice and glint of frost,
And sparkles in the crest'd snow;
And hark! the dancing
sleigh-bells tost
The faster as they fainter
grow.
E. R. Sill

HB

Arranged by E. Elizabeth Kelley

APPRECIATION

A DEXTROUS line, the work is done.
That work a million eyes hath won!
But few could see the weary years
Of struggle 'mid a mist of tears,
That lay enshrouded in that line.
And fewer yet could ever trace
Through depths of ages, realms of space,
The yeaning of the spirit fine
That grasped the potencies of line.

Minnie E. Hays

EDITORIAL

IN the death of Dr. William T. Harris, the cause of art education has suffered the loss of a staunch and noble friend. His death has extended his influence, however, (and for this reason we may rejoice even in our bereavement), for men and women all over the country have turned once more to his writings to renew communion with his fine and clear-eyed spirit. Being dead he still speaks. One turns to his illuminating little book, The Spiritual Sense of Dante's Divina Commedia; another to his profound Psychologic Foundations of Education; a third to his addresses, Beauty in Art vs. Beauty in Nature, Why Art and Literature ought to be Studied in Elementary Schools, Esthetic Education the True Manual Training, or some other of the masterly series. The mere list of his writings as published in the Report of the Commissioner of Education, 1907, is of such magnitude and of such astonishing range, that one is inclined to exclaim, "There were giants in those days."

To me Dr. Harris was a great good friend. I found him in 1888, in San Francisco. He introduced me to Emerson, to Carlyle, to Hegel and Dante, to Goethe and Plato. A visit to his home in Concord or in Washington was like a feast with the gods; one felt renewed within, charged with fresh power, filled with the ichor of invincible immortality. I owe Dr. Harris a debt beyond calculation, a debt I can never repay, a debt he would repudiate, perhaps, or smilingly acknowledge with the word, "Then try to place others in the same relation to yourself." Once when I quoted Ruskin's saying, "The true mission of every human soul is to depend upon as many nobler as it can discern and to be depended upon by as many humbler as it can reach," he thought for a moment and then rejoined, "Yes; but there is a deeper insight than that; each can help all and all each."

When I heard of the death of Dr. Harris I took from the shelf his Journals of Speculative Philosophy and read again his interpretation of Raphael's Transfiguration, and of Michelan-

gelo's Last Judgment. Then as I turned the leaves of the second volume, musing on the man and his work, I found my thought suddenly arrested by the title of one of the contributed articles, "Some Consequences of Four Incapacities." Had I not just written an editorial for The School Arts Book which might have been entitled Some Consequences of One Incapacity? And ought I not to write next on Some Consequences of Another Incapacity? Pictorial Drawing is to be our subject during January, February, and March, and Pictorial Drawing is one of our Incapacities.

¶ I wonder why it is? We have tried hard to teach children to draw the appearance of things, and we have failed—in comparison with our success in teaching children to read and write—failed almost completely. Of course one reason is that we have not given time enough to the teaching of drawing; probably less than a tenth as much time as we have given to the teaching of reading. But is that the only reason? Perhaps we have not discovered when to teach it, or how to teach it. Perhaps we do not as yet grasp why to teach it. On one point I am certain: if we really believed in the importance of pictorial drawing we would find more time for it. At the present moment we are not securing satisfactory results in school, we do not see satisfactory results out of school, nor have we ever seen good drawing widely prevalent in the United States. We have had a few men, trained for the most part abroad, who could draw; but any monthly magazine will furnish in its illustrations, for text and advertisement, examples of the incapacity of our artists and draftsmen. For good drawing we still look to the foreign-trained man. One of our world-famous corporations, manufacturing a certain cash capturing contrivance, boasts of its "Art Department," and makes it a show feature of its model

establishment. But what goes on in that same "Art Department"? The whole staff of "artists" is employed in mutilating and transforming posters, designed and made in Europe for European manufacturers, until they can be used to advertise the cash capturing contrivance. The "artists" cannot draw, they can only letter by imitation. The "art" of that department is the art of the grafter, the mimic, and the charlatan.

¶ We do not take the matter seriously. Where in America could such a scene as that on this page be paralleled? Twenty-five students in the Royal Hungarian College of Art are drawing from a group of geometric models, out of doors. Where in the American output in advertising (which is enormous beyond belief) could a card be found equal in mere drawing to the little German card reproduced on page 532? From the beginning (wherever that should be) thruout our art schools we need to

insist upon drawing. In our grammar and high schools blottesque landscapes, and "effects," studies in values, and studies in color, decorative arrangements and decorative "treatments," too often are offered as a substitute for correct drawing. "Drawing is the probity of art," said Ingres. In the Art Institute School at Chicago they realize that. All the students now, whatever their specialty—painting, modeling, design, or normal instruction—must spend the entire morning every day in drawing, drawing from the object, still life, or living model, for the sake of drawing.

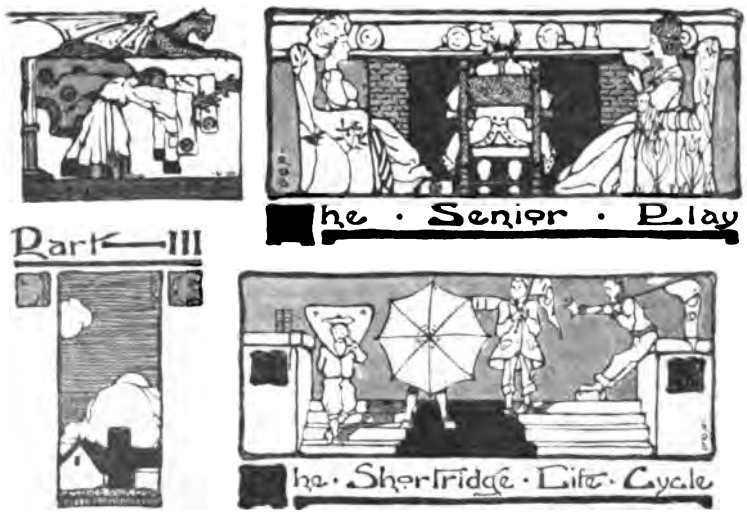
¶ In the Frontispiece this month I have tried to secure a facsimile reproduction of a drawing made in pencil, with a touch of colored crayon, to show the sort of result I believe we should aim to secure in the upper grades of the grammar school. The group might be called The Modern Sword. It is such as can

be set up in any schoolroom, drawn with a medium always at hand, in a manner which is as direct and frank as daylight. Every touch is evident and purposeful. There is no juggling with the medium to secure an effect. The aim was to make line tell all it could of the character of the objects. After outline had done its best the background tone was added (by means of lines formally arranged with forethought) to give relief to the group, and the few touches of temperate color were added to relieve the coldness of effect. That kind of drawing, practiced persistently, from the fifth or sixth grade thruout the high school, would give power to represent common objects correctly, and would bring pupils to the schools of technology or art with a good foundation in drawing and with nothing to unlearn.

¶ Persistence is the pathway to skill. For example, take something in another realm, the Ferrock Studio Pottery, one of a score of instructive illustrations, any one of which would do quite as well. A boy playing with clay in a woodshed; a desire to make beautiful vases, a determination, a patient apprenticeship in a commercial pottery, persistent study of processes, close observation of nature, perpetual meditation on the problem of appropriate decoration; a skilful, original designer, with his "dream pottery" come true. Such is the history of Mr. F. L. D. Ferrell, the man behind the ware. "Genius," say the French, "is a protracted patience." As I grow older in experience I become more thoroly convinced that persistence on the part of pupils in this matter of learning to draw will be generated by example only. When they see their teachers draw, and draw with ease, and draw well, they themselves will so earnestly desire a similar skill that they will be willing to pay the price.

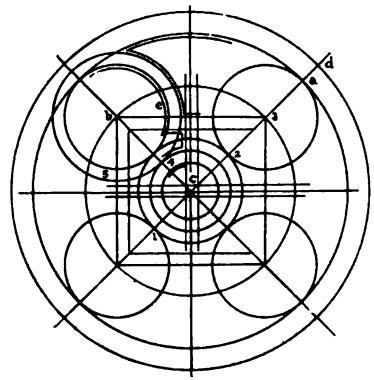
¶ In Indianapolis they have a Supervisor who can draw, and in the Shortridge High School they have a special teacher who

can draw. A suspicion naturally arises that these two persons at least are in some way responsible for the good drawing to be found in connection with other school work. The Annual published by the high school is one of the best in the country. Here are a few sample illustrations by Dale Bessire, the Art Editor for the 1909 number. The originals are in orange and black.



They evince training in model and object drawing as well as in design, and pen handling. The high school paper furnishes "a motive for productive effort." This volume contains upwards of seventy original drawings by pupils of this school. The cover is printed in three tones and embossed. The color scheme thruout is cheerful and effective. The text, under the editorship of Harry Dietz, indicates instruction in English as thoro as that in drawing and design. Good things consort in Indianapolis.

¶ The cover stamp this month is from a window in the Groote Kerk of Dordrecht. This church dates from the XIVth century, and is an instructive example of Dutch gothic. The quatrefoil, which is the motive for this design, was often used as a symbol of the Gospel written by the four Evangelists. This symbol was considered as especially appropriate for a window, for thru the Gospel the divine light streams in upon human life. The form became popular because it was supposed to bring good luck. It is the four-leaved clover in architecture. Hence its appropriateness at New Year's.



The geometric basis of this window is shown in the accompanying diagram. It may be worked out as follows: With a radius, c a, of 1 1-2″ draw a circle. Draw the diameter at 45°. Divide the radius into three equal parts, thus securing points 2 and 3. With C as a center and the radius C3, describe a circle. This circle locates the centers on the diameters for the four circles which form the basis of the quatrefoil. Draw the central circle and the four others tangent to one another and to the first circle drawn. With a radius 1-8″ less than the distance C2 describe circle 4. With center b draw circle 5 tangent to circle 4. The radius c d is 1-4″ greater than the radius c a. The rest of the construction is evident, the width of all the parts being uniformly 1-8″. The lines indicating the bevel of each part of the sash may be added last as suggested at e.

¶ Some time ago I was asked for a statement concerning the amount of time devoted to drawing and manual training in the

elementary schools. I made inquiry in twenty representative cities and large towns, with the following result:

In Primary Grades, average for
Drawing, 75 minutes per week.
Handicraft, 50 minutes per week.
In Grammar Grades, average for
Drawing, 75 minutes per week.
Handicraft, 75 minutes per week.

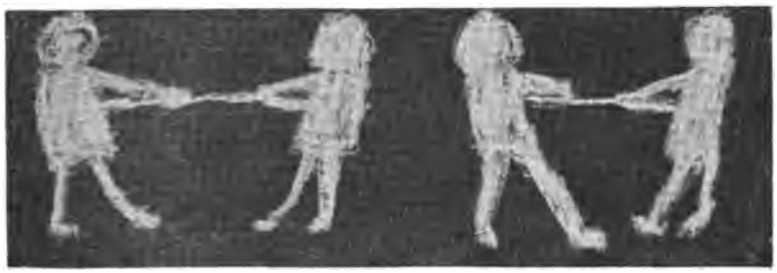
Those to whom I sent were asked to give an opinion as to whether the time now devoted to the manual arts is sufficient. Not one person said it is. Randall J. Condon of Helena would extend the school day if necessary, to get more time for manual arts in the grammar grades. Miss Ball of San Francisco would have four hours per week, Miss Weir of Brookline, Mass., agrees with her. Dr. Haney says two hours in lower grades and three in the upper. Miss Getz of Atlanta, Ga., says three and one-half hours thruout. Miss Seegmiller of Indianapolis would so correlate drawing and handicraft with other studies that expression by these means would be practically continuous. If we could get two and one-half hours per week set aside for the manual arts in the lower grades, and three and three-quarters hours in the upper grades,—in other words, a half-hour a day in the primary grades, and three-quarters of an hour a day in the grammar grades,—we would not be claiming more than we ought. Viewing the history of the world in the large, it is astonishing to see how much great art and noble handicraft has been produced by people who never heard of phonics, medial slant, bank discount, or pronominal adjectives!

> One of these days, all our school courses will be reorganized on the basis of the arts.
>
> *Col. Francis W. Parker.*

CORRESPONDENCE

My dear Mr Bailey:— Denver, Colorado.

I am sending you under separate cover examples of work done by my second grade (seven year old) pupils, in a series of ten forty-minute lessons. The material, as you see, is silhouette paper and ordinary blackboard crayon. The drawings were fixed with the usual alcohol and shellac mixture. The first lessons were copies of blackboard drawings. The later ones were pose drawings, in which work the children had had no previous practice. After posing the



models, I made sketches on the blackboard, suggesting the manner of handling the crayon, and emphasizing necessary points. These sketches were in all cases erased before the children began work. I think you will agree that in most cases they drew the figures as they saw them.

The work has been wholly experimental with me, but I feel satisfied that it has been profitable. The children draw much more freely and easily than with pencil, they enjoy "seeing the figures grow," they see the whole picture—they do not look for lines to copy.

Usually, I have occupied the first twenty minutes in giving directions and making sketches on the blackboard, leaving the other twenty minutes

for the children's work. The size of the class—eighty-seven pupils—allows scarcely any individual instruction in drawing.

I intend soon to put lead pencils into the children's hands, and shall be much interested in learning how this preliminary work affects the other.*

Yours very sincerely,
Clara Grossmayer.

Dear Sir: Newport, R. I.

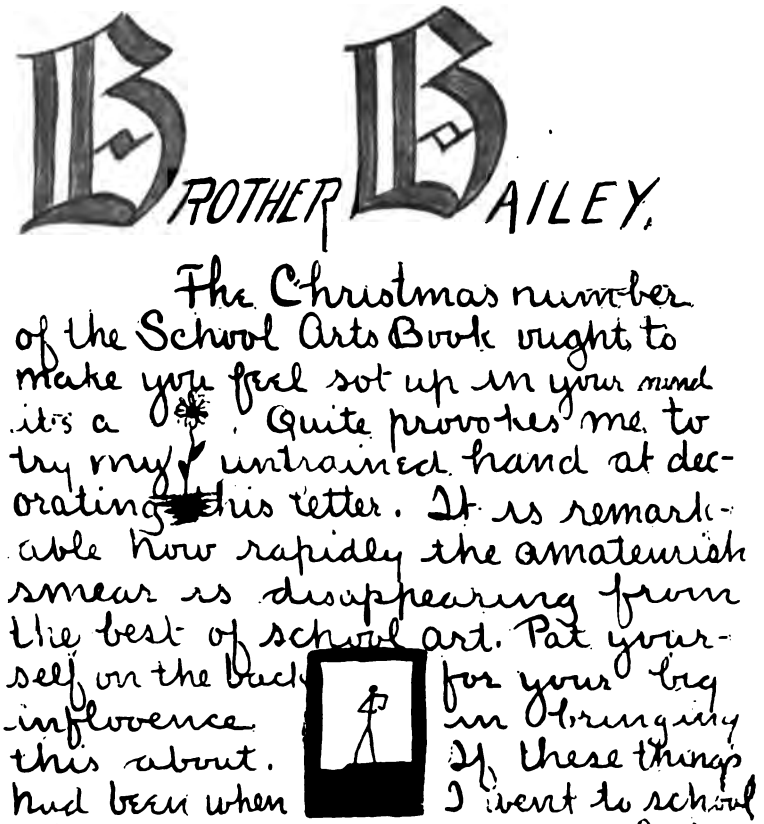
I am writing to you because, on account of The School Arts Book and of various lectures which I have heard you give, I feel that the efforts of humble art teachers do not bore you.

I am enclosing a "snap" of a screen of "portraits" shown at our High School exhibition, May, 1909, the work of seniors and post-graduates.

The little model has since died, and, as she had had no photographs taken, the father has sought to have No. 3 enlarged, and the photographer has sold many snaps to schoolmates.

Yours very sincerely,
Lulu B. Roderick.

*I have written Miss Grossmayer Her letter offers a suggestion other teachers may be glad to receive. Of the many drawings which accompanied the letter I selected for reproduction the Esquimo houses by Pattie Field, and the children at play by George Nye, both second grade pupils.—Editor


BROTHER BAILEY.
The Christmas number of the School Arts Book ought to make you feel set up in your mind its a . Quite provokes me to try my untrained hand at decorating this letter. It is remarkable how rapidly the amateurish smear is disappearing from the best of school art. Pat yourself on the back for your big influence in bringing this about. If these things had been when I went to school 70 years ago what a decorativ letter I might BE sending you!

The letter reproduced herewith, unfortunately without the rubrication of the original, needs no comment. It comes

from a well known high school master in one of our largest cities.

"A little nonsense now and then
Is relished by the best of men."

But herein is also wisdom; let him that reads "mark" and inwardly digest."

Nebraska, October, 1909.

I had intended sending you an article, entitled "A Plea for More Perspective Work in Our Public Schools," but my brain (never very prolific at best) seems to have stopped working.

Would it not be possible for you or somebody else to write an article on "Perspective" for The School Arts Book? Your magazine is so helpful and so widely read that I think such a contribution would do much good.

I am sick at heart to see so much ignorant work along this line, and such an expenditure of material and energy with so little of the beautiful resulting.

In mathematics or literature or grammar, if but one-tenth of the class succeeded in showing good results, both school and teacher would be classed as failures. Should we accept any lower standard in drawing? Both my sister (a principal in another city) and I have not infrequently seen drawing lessons given where not more than a tenth or possibly a fifth of the pupils achieved anything really worth while.

The special teachers say, "Why, we do teach perspective";—but it seems to us that there is too much "smatteration" (if I may use such a word) and too little actual instruction in perspective.

I feel that my own knowledge is far too meagre to enable me to write such an article, so I lay the matter before you Sincerely yours,

X. Y. Z.

In reply to this letter let me say that the teaching of scientific perspective has been relegated to the high schools and more advanced art institutions. It used to be essayed in the grammar grades. Experienced teachers now hold that the principles of model and object drawing, such as those noted in the Outline and elucidated (let us hope) by the notes, illustrations, and contributed articles in the four numbers, December, January, Feb-

ruary, and March, are all that grammar school pupils should be required to master. To secure the mastery of these principles by the majority of grammar school graduates demands much more time for drawing, regular teachers who understand the subject, and a more efficient body of supervisors, who shall be inspiring leaders for both teachers and pupils. Efficient leadership?—"Where it cometh all things are."

Drake University, Primary Training School.

Dear Sir:

The School Arts Book I read with great pleasure, beginning at the front page, and I wish I could contribute something to it that might prove interesting. When you were in Des Moines I spoke to you about some results I had secured in paper cutting, but the meeting I presided over was very long, and you were gone when I was free, so I am sending them by mail. The work is the outgrowth of our freehand cutting course in the training class. The girls were told to work out a landscape in greens, browns, blues, or some other combination in color. It was our first attempt at anything of the kind, and I send them just as they were handed in. In some cases the tones did not satisfy, and plain washes were used. The cutting is freehand. Will this work furnish an opportunity to carry freehand cutting beyond the second grade with profit? Could this work precede landscape work in color, and thus bring about better results in water color? I have seen no work of this kind, and long for some judgment on it besides my own.

Thanking you in advance for the favor I am asking you, I am

Yours truly,

Ella Ford Miller.

Some of the results are reproduced herewith, unfortunately without their colors. The originals are gratifying in their soft, flat tones of well defined shapes and values. Without condemning summarily such work in the advanced grades, one may say that on general principles a laborious way of securing an effect should give place to a facile way, and that in teaching, a mechanical process should be supplanted by an educational process. The fact that in the case in hand some pupils were obliged to

resort to water color to secure the right tones is of itself an index finger. Freehand paper cutting has a value in the lower grades as an aid to thinking in mass, and as a manual discipline. It is always a manual discipline; but its tendency, in more advanced grades, is to divert the attention from masses to details, to the technique—of necessity mechanical, and to "stunts." The brush and water color is a safer medium.

THE ARTS LIBRARY

BOOK REVIEWS

The Story of Dutch Painting. By Charles H. Caffin. 210 pp. 5 1-2 x 8 1-2. 32 full-page illustrations in halftone. The Century Co. $1.20 net.

Dutch painting is a complex subject. Art students who fell into the hands of Ruskin in their youth find it difficult to think of it without remembering his slurring words concerning "the Van-somethings and the Bach-somethings who have libelled the sea." Those who have attempted for themselves to thread the mazes of Dutch art are frequently reminded of Carlyle's description of the country, "An intricate, amphibious, Potsdam region." Mr. Caffin has done a great service for art students in writing this story of Dutch painting, for he has made it possible for the thoughtful student to discover an order in what may have appeared in his mind chaotic. His classification of the art according to schools in the third chapter, and his discussion of the work of a few great typical men in the following chapters, place in the student's hands guides to the intelligent prosecution of his studies beyond the limits of the book. The conditions which favored the growth of the northern schools of painting are clearly set forth in the first chapters of the book. After reading them one turns instinctively to Taine's brilliant opening chapters in his "Philosophy of Art in the Netherlands" for another illuminating view of the circumstances which led, as Mr. Caffin affirms, to a complete revolution in the history of painting, namely, the substitution of the natural beauty of common things as a motive in the place of the human form which had been the supreme motive of Greek sculpture and Italian painting. The book is in Mr. Caffin's usual happy vein where well-informed judgments are expressed with discrimination but in a magnetic style. The book is dedicated to the present and future art of the new republic of the United States of America. Possibly its salutary influence might be more immediate had Mr. Caffin added a chapter on the dangers of following the Dutch light too far.

Problems in Wood Turning. By Fred D. Crawshaw. A dispersible pamphlet of 36 pages with 50 illustrations in the text plus 25 full-page plates. The Manual Arts Press.

This is a text book for students working under the supervision of a teacher. It aims to present the subject simply and directly and "to show the reason for the handling of the tool in a particular way for each cut." The first chapter aims to place before the student certain principles of constructive design which

the author prefers to call the principles of form and proportion. This chapter is a most welcome novelty. His principles are sound as far as they go and well illustrated by means of a few well-chosen diagrams. Unfortunately the author does not always exemplify his principles in his plates. For example, the designs given in plates 7, 8, 9, 11, and 15 are all of the character which he defines as bad on page 10, a fact which indicates the inadequacy of receipts to produce objects of taste. A long discipline in the observation and delineation of beautiful objects which results in a vast store of vitalizing memories is the only soil from which tasteful handicraft can grow. The plates are well drawn and furnish the pupil with good forms to copy or to correct in the light of principles of structural design and the conditions of use. The text is admirably clear. To one who has been self-taught in the hard school of experience the explanation of the cause of the provoking "run" on page 19 is welcome. A table of "dont's" might be helpful to the beginner with lathe tools even if it is unpedagogical.

Simplified Mechanical Perspective. By Frank Forrest Frederick. 54 pp. 6 1-2 x 10. 37 plates in line. The Manual Arts Press. 75 cents.

The author makes a plea for what he calls the perspective sense. The plea is timely and his estimation of the value of the perspective sense to sculptors, painters, and illustrators is none too high; in fact it is nowhere near high enough, for it is equally valuable to mechanical draftsmen and to all who would enjoy nature and art to the full. The late Dean Shaler used to lament the almost universal lack of power on the part of his students in geology to think in three dimensions. The book is not for casual reading. Like Dr. Ross' book, "A Theory of Pure Design," it is to be conscientiously worked thru by the pupil, problem by problem, in the order given. The least satisfactory chapter is that on the perspective of circles. The proportions of the perspective diagrams used are such that the results are distorted beyond the power of beginners in the subject to reconcile satisfactorily with the reports of vision about the objects themselves. The perspective relation of axes in cylindrical objects is not adequately treated. The author suggests, and rightly, that freehand and mechanical perspective should be carried on together, and that the consideration of the essentials as given in the book will enable the student to apply his knowledge to practical problems. A few suggestions concerning such problems would have been welcome, for perspective students are quite like other people in their inability to see for themselves the application in their own personal practice of the principles which they have grasped ab-

stractly. The book is a result of Professor Frederick's long and successful experience. He knows the road and the minds of the young people who travel it.

Wood Turning. By George Alexander Ross. 76 pp. 6 x 8. 93 illustrations and 6 plates. Ginn & Co. $1.00 net.

This book begins with a description of the speed lathe and its parts, of the tools used in wood turning, and of their care and use. The author has observed that pupils often lose confidence and become nervous because of the mishaps sure to occur in attempting complex forms too early. His course of exercises begins therefore with the turning of a cylinder, and of cylindrical forms not involving beads and similar details until the pupil has attained a certain confidence and skill. The author affirms that each successive lesson contains a new principle closely related to those in previous exercises. Among the exercises the dangerous wooden candlestick, the monotonous bead ornaments, and the idiotic layer-cake things glued up for the unhappy occasion still appear after twenty years of protest and condemnation on the part of every person of taste. There is hardly an object in the entire book with a contour wherein the rule and the compass have not usurped the place of the informed free hand. The text is clear and concise. The illustrations illustrate. It is a pity that so many of the exercises are so needlessly ugly.

Frogs O'Poolo. By Joshua Freeman Crowell. 178 pp. 7 x 10. E. P. Dutton & Co.

The adult who can force himself back into the realm of childhood and write books for children, books which are as dear to the heart of the little people as David Copperfield, Jane Eyre, and Lorna Doone are to grown-ups, is as rare as a great poet. Did Lewis Carroll know he was writing a children's classic when he produced Alice in Wonderland? What are the elements which insure the immortality of books for children? Perhaps these questions cannot be answered. Perhaps all that any author who attempts to write for the child can hope to attain is the satisfaction of knowing that his book is welcomed by the children of his own time. That Mr. Crowell has produced such a book, any one can easily prove for himself by placing it in the hands of any child from eight to twelve years of age. Children are simply fascinated with these fanciful stories of insect and animal life, full of clever rhymes and alliterations, ludicrous catastrophies, and absurdly reasonable denouments

The stories evince sympathetic observation of nature, a jovial interpretation of the facts, and something of the keen wit of old Æsop himself. When has the spirit of the entire mud-turtle race been interpreted so well for the guidance of garrulous humanity as in the following "motto of the turtle family?" "When in doubt, shut up; while in doubt, keep shut." The book is reviewed here not merely because it is an unusually successful bid for the juvenile vote, but because every page teems with mental pictures which children would love to put upon paper, the drawing of which would involve close observation of nature and at the same time give the imagination a loose rein. The decorative illustrations in this volume, by Harold Sichel, are good for children to see and the end papers are masterpieces of decorative design for children.

Education for Efficiency. By Charles W. Eliot. 58 pp. 4 1-2 x 7. Houghton Mifflin Co. 35 cents.

This volume is one of the Riverside Educational Monographs, edited by Henry Suzzalo. It contains two addresses by Dr. Eliot on related subjects, Education for Efficiency and The New Definition of the Cultivated Man. This volume is here mentioned because it contains a kind of reading matter too seldom appropriated by teachers of drawing and handicraft. Those who read it cannot but be helped in their own professional life. The specialist will find herein a test of the variation of his own compass from the true north, of the divergence of his pathway from the goal of sound education. Incidentally, the observant reader will have had an object lesson in the fine art of using English speech, a lesson which many a specialist sorely needs.

RECENT PUBLICATIONS

THE NATIONAL GALLERY. A Series of Facsimile Reproductions in Color of the Masterpieces of the Italian, Flemish, and English Schools, in the London National Gallery. With descriptive text by Maurice E. Brockwell, Paul G. Konody, and F. W. Lippmann. Dodge Publishing Co. $8 net. Also sold separately in seventeen parts, each 60 cents net.

BEAUTIFUL CHILDREN IMMORTALIZED BY THE MASTERS. By C. Haldane McFall. A collection of fifty world-famous paintings of children, reproduced from the original paintings of the old masters, and printed in colors. Dodd, Mead & Co. $4 net.

ARTISTS PAST AND PRESENT. By Elisabeth Luther Cary. The contents include: Antoine Louis Barye, The Art of Mary Cassatt; Max Klingen, Fantin-Latour, etc. Illustrated. Moffat, Yard & Co. $2.50 net.

FRENCH CATHEDRALS. By Elizabeth Robins Pennell; illustrated from drawings and etchings by Joseph Pennell. Century Co. $5 net.

ORIENTAL CARPETS, RUNNERS, AND RUGS, and Some Jacquard Reproductions. A book for lovers of beautiful decoration. Illustrated in color, etc. Macmillan Co. $10 net.

FRENCH PASTELLISTS OF THE EIGHTEENTH CENTURY. By Haldane McFall. Treats of the works, lives, times, and importance of such pastellists as La Tour, Lundberg, Mme. L. Guiard, Rosalba Carriera, Boucher, Chardin, and Vigée-LeBrun. Illustrated. Macmillan Co. $8 net.

DUTCH ART IN THE NINETEENTH CENTURY. By G. H. Marius; translated by A. Teixeira De Mattos. Illustrated with a photogravure frontispiece and one hundred and thirty plates in halftone. J. B. Lippincott Co. $3.75 net.

STORIES OF THE FRENCH ARTISTS. By P. M. Turner. A new volume in the "Art and Letters Library." Illustrated in halftone and color. Duffield & Co. $3 net.

FAMOUS CATHEDRALS. Described by Great Writers. Compiled by Esther Singleton. Includes St. Peter's, Nôtre Dame, Westminster Abbey, and others. Illustrated. Dodd, Mead & Co. $1.60 net.

GREAT ENGLISH PAINTERS. By Francis Downman. Illustrated. George W. Jacobs & Co. $1.50 net.

CITY PEOPLE. Drawings in pen-and-ink and wash by James Montgomery Flagg, depicting people and scenes from all phases of life in town. Charles Scribner's Sons. $3.50 net.

BIRD HUNTING THROUGH WILD EUROPE. By R. B. Lodge. A narrative of three expeditions to remote parts of Europe, with gun and camera, in search of rare birds. Illustrated. D. Appleton & Co. $2.50 net.

NOTES ON THE SCIENCE OF PICTURE-MAKING. By C. J. Holmes. Part I, Emphasis of Design; II, Emphasis of Materials; III, Emphasis of Character. There is a fine, clear introduction and, at the end of the 331 pages, a most useful index of artists. The Athenæum says: "Since Reynold's discourses the student has never had put before him such a fruitful and suggestive guide to his endeavors." D. Appleton & Co. $3 special net.

FRESCO PAINTING. Its Art and Technique, with Reference to the Buono and Spirit Fresco Methods. By James Ward. Illustrated. D. Appleton & Co. $3 special net.

AN ART-CRAFT INDEX TO THE DECEMBER MAGAZINES

PERTINENT ARTICLES

Adaptability of Work in Cold Metal to Educational Needs, The, Ray L. Southworth, Manual Training Magazine, p. 149.

Alfred Gilbert at Bruges, Alys Eyre Macklin, International Studio, p. 98.

American Stained Glass, Clara Weaver Parrish, Palette and Bench, p. 55.

Application of Nature Subjects to Designing in Japanese Art, The, Sei-Ichi Taki, International Studio, p. 125.

A Reading Journey Through Egypt. IV. The Voyage of the Nile, The Tombs of the Barons, Abydos and Denderah. James H. Breasted, Chautauquan, p. 49.

A Revival of Hand-woven Textiles. The Work of the Herter Looms, Esther Matson, House Beautiful, p. 13.

Artist and the Picture, The, Charles H. Caffin, Circle, p. 322.

Art of Edward John Gregory, R. A., A. Lys Baldry, International Studio, p. 87.

Art of Ettore Tito, Modern Italian Painter, The, Charles H. Caffin, Craftsman, p. 240.

Art of Harold Speed, The, Charles H. Caffin, Harper's, p. 129.

Better Grammar Grade Provision for the vocational needs of those likely to enter industrial pursuits, Alvin E. Dodd, Manual Training Magazine, p. 97.

Commercial versus Art Printing, Samuel Graydon, Printing Art, p. 277.

Craftsmanship in a Cottage, Louise Shrimpton, Good Housekeeping, p. 705.

Early Madonnas, Edwina Spencer, Chautauquan, p. 114.

Educative Value of Manual Training, The, S. Horace Williams, Manual Training Magazine, p. 158.

Etchings of Jean Francois Raffaelli, The, Henri Frantz, International Studio, p. 118.

Following the Rainbow; a consideration of some of the guides for the printer in pursuit of color, Harry S. Thompson, Printing Art, p. 273.

Foremost American Illustrators, Craftsman, p. 266.

Historical Persian Architecture, Lewis F. Pilcher, Chautauquan, p. 79.

Industrial Education a Phase of the Problem of Universal Education, Eugene Davenport, Manual Training Magazine, p. 135.

Machine-woven Rugs after Oriental Designs, International Studio, p. xli.

Neglected French Periods. The third in a series of articles on historic styles in furniture, and their influence on modern designing, Virginia Robie, House Beautiful, p. 18.

Portraits as Decoration, Frank Fowler, Scribner's, p. 765.

Relation of Photography to the Printing Art, The: I, The Status of Photography, Charles H. Caffin, Printing Art, p. 253.

Romance of Color Photography, The, J. Horace McFarland, Suburban Life, p. 298.

Some Women Etchers, Frank Weitenkampf, Scribner's, p. 731.

Song Birds as Christmas Gifts, Thomas F. McGrew, Suburban Life, p. 309.

Tale of Troy in Greek Art, The, Alfred Emerson, Chautauquan, p. 97.

Visiting Manual Training Schools in Europe, II, Oxford and Birmingham, Charles A. Bennett, Manual Training Magazine, p 109.

Wedgwood, House Beautiful, p. xviii.

William MacGregor Paxton, Philip Hale, International Studio, p. xlvi.

William Merritt Chase, A Typical American Artist, William Howe Downes, International Studio, p. xxix.

Working from Memory, Mrs. Frances Brundage, Palette and Bench, p. 51.

ILLUSTRATORS

Adams, John Wolcott, Scribner's, pp. 727-730.
Akin, Louis, Craftsman, frontispiece.
Ashley, C. W., Scribner's, frontispiece.
Aylward, William J., Harper's, pp. 106, 108, 109-112, 114.
Bastien-Lepage, International Studio, p. 1.
Becher, Arthur, St. Nicholas, pp. 145, 149.
Benda, W. T., Century, pp. 187, 191; Circle, pp. 308, 309; Outlook, pp. 722, 725.
Biggs, Walter, Circle, pp. 310-312.
Birch, Reginald, Delineator, pp. 504, 505.
Black, Norman Irving, Century, pp. 231, 232, 234.
Blumenschein, Ernest L., Century, p. 275.
Booth, Franklin, Scribner's, pp. 680, 704-716, 740.
Booth, Hanson, Circle, pp. 306-307; McClure's, pp. 190, 191, 193-196
Boughton, Alice (photographs), Good Housekeeping, pp. 611-618.
Bourget, C., International Studio, pp. 156, 157.
Boyd, John, Century, p. 255.
Bracker, M. Leone, Ladies' Home Journal, p. 17.
Brehm, George, Ladies' Home Journal, p. 19.
Brown, Arthur William, American Magazine, pp. 156, 157-165.
Brundage, Mrs. Frances, Palette and Bench, pp. 51-54, 66.
Bull, Charles Livingston, Craftsman, p. 276.
Burd, Clara M., Circle, cover.
Campbell, Blendon, American Magazine, frontispiece, pp. 148, 150, 152.
Chamberlain, Emily Hall, St. Nicholas, pp. 101-104.
Chase, S. M., Harper's, pp. 85, 90.
Chase, William M., International Studio, pp. xxx-xxxvi.
Clark, Harriet A., St. Nicholas, p. 116.
Cleland, T. L., McClure's, tailpieces and decorations.
Connoyer, Paul, Delineator, pp. 517-520.
Couse, E. Irving, Palette and Bench, supplement.
Craig, Frank, Delineator, p. 502; Harper's, pp. 140, 144; Scribner's, p. 680.
Crawford, Will, Ladies' Home Journal, p. 7.
Crouch, R. Weir, Century, pp. 215-218, 221-225.
Daugherty, James H., American Magazine, pp. 273, 275, 277, 279, 281.
Dillon, C. B., Ladies' Home Journal, p. 9.
DuMond, F. M., Ladies' Home Journal, p. 6.
Edwards, Edward, Outlook, p. 722-732.
Elsley, Arthur J., St. Nicholas, pp. 114, 115.
Emrich, Harvey, Delineator, p. 503.
Enright, Maginel Wright, St. Nicholas, pp. 108, 109, 111, 112.
Enright, W. J., and Maginel Wright, Circle, pp. 315, 316.
Euwer, Anthony H., Circle, p. 362.
Fenn, Harry, McClure's, p. 144.
Flagg, James Montgomery, American Magazine, pp. 197, 241-243; Scribner's, p. 689.
Fogarty, Thomas, Scribner's, pp. 745, 747, 748.
Gilbert, Alfred, International Studio, pp. 99-118.

Green, Elizabeth Shippen, Harper's, pp. 41-44, 46-48, 50, 122.
Greer, Blanche, McClure's, pp. 173-175.
Gregory, Edward J., R. A., International Studio, frontispiece, pp. 87-97.
Guerin, Jules, Century, cover, pp. 167, 171.
Hambidge, Jay, American Magazine, pp. 244, 246, 247, 249.
Hitchcock, Lucius Wolcott, Ladies' Home Journal, p. 11; Scribner's, pp. 673, 675, 678.
Ingham, Elizabeth Howell, Outlook, pp. 695, 697.
Ivory, P. V. E., Century, p. 287.
Keller, Arthur I., Century, p. 251; Delineator, p. 506; Ladies' Home Journal, p. 13.
Kinneys, The, St. Nicholas, frontispiece.
Kirby, Rollin, Good Housekeeping, p. 692.
Kleinschmidt, Carl, Delineator, p. 469.
Leys, Baron, International Studio, p. li.
Masters, F. B., American Magazine, pp. 223, 225, 228; St. Nicholas, pp. 117, 119.
McQuinn, Robert, Delineator.
Meylan, Paul, American Mazagine, pp. 230, 232.
Moore, H., Delineator, p. 501.
Murphy, Mrs. J. Francis, Century, frontispiece.
Nattier, J. M., Printing Art, p. 256.
Nelson, G. Patrick, Good Housekeeping, pp. 650, 652, 654, 658.
Oberhardt, William, Delineator, p. 509.
O'Neill, Rose, Ladies' Home Journal, p. 26.
Peck, Clara Elsene, Century, p. 277, 285, 286; Circle, pp. 299-301.
Pennell, Joseph, International Studio, pp. 150, 151, xl.
Perrett, G. J., Good Housekeeping, p. 703.
Perry, Raymond, Circle, p. 302.
Post, Charles Johnson, Century, pp. 176-184.
Pyle, Howard, Harper's, frontispiece, pp. 3-11, 28, 34.
Rae, John, Circle, pp. 313, 314.
Raffaelli, Jean Francois, International Studio, pp. 118, 119, 121-124.
Ralph Lester, Century, pp. 206, 207; Scribner's, pp. 692, 701.
Rosenmeyer, B. J., Ladies' Home Journal, p. 21; St. Nicholas, p. 129, 131-133.
Ross, Gordon, Delineator, p. 569.
Sakai, Hoitsu, International Studio, pp. 125, 126.
Sanger, Grace Cochrane, Ladies' Home Journal, p. 75.
Schoonover, Frank E., Century, pp. 290, 296.
Schuyler, Remington, Century, p. 256.
Scott, W. J., St. Nicholas, p. 113.
Shaw, Byam, International Studio, p. 143.
Sigsbecker, Mary, American Magazine, cover.
Smith, E. Boyd, Printing Art, frontispiece.
Smith, Howard E., Harper's, pp. 63, 66.
Smith, Jessie Willcox, McClure's, cover, pp. 177-182.
Solon, Leon V., Outlook, cover.
Sommer, J. G., Century, pp. 266, 267.
Soper, J. H. Gardner, Delineator, cover; McClure's, frontispiece, p. 132.
Speed, Harold, Harper's, pp. 131-138.
Stearns, Fred, House Beautiful, cover.

Steele, Frederick Dorr, McClure's, pp. 221, 223-225, 227-230.
Strothmann, F., Good Housekeeping, pp. 672, 674.
Taylor, F. Walter, Harper's, pp. 20, 24; Scribner's, p. 703.
Tito, Ettore, Craftsman, pp. 241-246.
Tobin, George T., Ladies' Home Journal, cover; McClure's, p. 154-156.
Underwood, Clarence, Century, p. 258.
Varian, George, American Magazine, pp. 251. 253, 260-262; St. Nicholas, pp. 152, 153.
Vedder, Elihu, Century, pp. 300, 301.
Verbeck, Frank, Delineator, pp. 497, 498.
Wellington, F. H., Delineator, p. 502.
White, C. H., Harper's, pp. 75, 77-79, 81.
Widney, Gustavus, World To-Day, frontispiece.
Williams, John A., Harper's, pp. 99, 104; Ladies' Home Journal, p. 15.
Wireman, Eugenie, St. Nicholas, cover, p. 151.
Wyeth, N. C., Scribner's, pp. 681-684.
Yohn, F. C., Scribner's, p. 725.

COLOR PLATES

"A Singapore Junk at Sea," William J. Aylward, Harper's, p. 106.
A Sketch, in two colors, of the Canadian Rockies, Louis Akin, Craftsman, frontispiece.
"A Wolf had not been seen at Salem for thirty years," Howard Pyle, Harper's, frontispiece.
Cover design, Clara M. Burd, Circle.
Cover design, Jules Guerin, Century.
Cover design, Mary Sigsbecker, American Magazine.
Cover design, Leon V. Solon, Outlook.
Cover design, J. H. Gardner Soper, Delineator.
Cover design, Fred Stearns, House Beautiful.
Cover design, George T. Tobin, Ladies' Home Journal.
Cover design, Eugenie Wireman, St. Nicholas.
"Eleanor," Mrs. J. Francis Murphy, Century, frontispiece.
"Hunting the Deer," E. Irving Couse, Palette and Bench, supplement.
"Le Boulevard des Italiens, Paris," Jean Francois Raffaelli, International Studio, p. 119.
"Louise Henriette de Bourbon-Conti," J. M. Nattier, Printing Art, p. 256.
"Marooned," Edward J. Gregory, R. A., International Studio, frontispiece.
"Mr. and Mrs. Ellis Parker Butler and Child," Ernest L. Blumenschein, Century, p. 275.
"Once it chased Doctor Wilkinson into the very town itself," Howard Pyle, Harper's, p. 10
"Our Christmas Spirit," Gustavus Widney, World To-Day, frontispiece.
"Santa Claus wanders about the street seeing everything but never being seen," E. Boyd Smith, Printing Art, frontispiece.
"See! I have made my knife hot," Elizabeth Shippen Green, Harper's, p. 48.
Spring, Summer, Autumn, Winter, four plates by N. C. Wyeth, Scribner's, pp. 481-484.
"The Blind-folding of Truth—an Allegory," Tapestry designed by Byam Shaw, International Studio, p. 143.
"The Christmas Exile," C. W. Ashley, Scribner's, frontispiece.
The Columns of the Sun, Baalbec, Jules Guerin, p. 171.
"The man handed the knife hilt first to Puck," Elizabeth Shippen Green, Harper's, p. 44.
The Temple of Bacchus, Baalbec, Jules Guerin, Century, p. 167.

Title page, Ladies' Home Journal, Grace Cochrane Sanger, p. 75.
Views from the Delineator's Windows: Four paintings by Paul Connoyer, Delineator, pp. 517-520.
"Where the east sits down and waits for the west to come and barter," William J. Aylward, Harper's, p. 112

NOTABLE DESIGNS

American Domestic Rugs, House Beautiful, pp. 21-23.
Artistic darning (embroidery), Home Needlework, pp. 441-442.
Belts, Ladies' Home Journal, p. 77.
Bench hook, Manual Training Magazine, p. 190.
Bookcase table, Good Housekeeping, p. 759.
Book cover, Outlook, p. 712.
Book covers in carved wood and tooled leather, International Studio, p. 167.
Book illumination, Outlook, p. 713.
Borders and initials, Delineator.
Candelabrum, International Studio, p. 117.
Carved fire screen, International Studio, p. 167.
Carved oak altar table, International Studio, p. 168.
Carved oak panel, International Studio, p. 168.
Carving, Craftsman, pp. 341-345.
Chafing-dish aprons, Good Housekeeping, p. 715.
Chest in Louis XII style, early XVI century, House Beautiful, p. 18.
Covers for pincushions, Palette and Bench, pp. 59-61.
Cross-stitch designs, Palette and Bench, pp. 61-64.
Decorated china, Keramic Studio, pp. 167-170, 172, 174, 176-178.
Doorway in early French Renaissance, House Beautiful, p. 19.
Embroidery, Circle, p. 341; Good Housekeeping, pp. 714, 717, 720; International Studio, p. 166; Ladies' Home Journal, pp. 78, 83.
Furniture, International Studio, pp. xxxvii-xl.
Hexagonal table, Manual Training Magazine, pp. 193-195.
Highboy (early English), International Studio, p. 4.
Illumination, International Studio, p. 147.
Japanese Boxes, International Studio, pp. 130, 131.
Japanese lacquered chest, International Studio, p. 129.
Japanese sword guard with scenic designs carved in metal, International Studio, p. 127.
Japanese table-cloth, International Studio, p. 135.
Japanese tea caddy and tea bowl, International Studio, p. 133.
Japanese trays, International Studio, p. 132.
Japanese writing case, International Studio, p. 130.
Jasper ware, House Beautiful, p. xviii.
Lenox Belleek China, International Studio, pp. 20, 22, 24.
Magazine covers, Palette and Bench, pp. 64, 65.
Magazine text headings, Printing Art, p. 276.
Marble puzzle, Manual Training Magazine, p. 191.
Old-fashioned chest of drawers, International Studio, p. 6.
Oriental rugs, Suburban Life, pp. 306, 307.
Pierced brass, Home Needlework, pp. 456, 457

Porcelain "Kugi Kakushis," International Studio, p. 127.
Porringer (Hudson-Fulton Exhibition), International Studio, p. 8.
Pottery, Keramic Studio, pp 180, 181.
Reformation monument, Geneva, International Studio, pp. 158-160.
Rugs, International Studio, pp. xli-xliii.
Silver button and pendant, International Studio, p. 167.
Silver card tray, International Studio, p. 166
Silver chains, International Studio, p. 114.
Some notes on tables, Circle, p. 334.
Stained glass, Palette and Bench, pp. 55-59.
Statue of General Alexander Macomb, Detroit, Michigan, A. A. Weinman, International Studio, pp. xliv, xlv.
Steam engine, Manual Training Magazine, pp. 187-189.
Stencilling, Good Housekeeping, pp. 715, 718, 719; Home Needlework, frontispiece, pp. 460, 461, 480; Ladies' Home Journal, p. 79.
Table decorations (candlesticks, silver, glass, etc.), House Beautiful, pp. 617, 618.
Table scarf with cross-stitch border, Home Needlework, pp. 458, 459.
Three craftsman chairs, Craftsman, pp. 334-337.
Three craftsman lamps, Craftsman, pp. 338-340.
Tooled leather, Circle, p. 323.
Triptych for St. Andrew's church, Handsworth, International Studio, p. 148.
Weaving, the work of the Herter looms, House Beautiful, pp. 13-15, 17.
Window draperies, Suburban Life, pp. 301-302.

THE SCHOOL ARTS GUILD

I WILL TRY TO MAKE THIS PIECE of WORK MY BEST

NOVEMBER CONTEST

AWARDS

First Prize, Book, a packet of "Japanese Birds and Animals," published by The Davis Press, and Badge with gold decoration.

*Gabrielle Thibault, IX, Dominican Academy, Fall River, Mass.

Second Prize, a set of "Old Japanese Designs," published by The Davis Press, and Badge with silver decoration.

Daniel de Grasse, VIII, Far Rockaway, N. Y.
Samuel Kaplowitz, VIII, Wendell Phillips School, Phillips St., Boston, Mass.
Bessie O'Connor, VII, Dominican Academy, Fall River, Mass.
Ralph Starkey, V, School 72, Baltimore, Md.
Olive Watson, VIII, Hunt School, Sioux City, Iowa.

Third Prize, a copy of "Blackboard Drawing," published by The Davis Press, and Badge.

Ruth Clark, V, Easthampton, Mass.
Howard Dow, III, 1512 East 7th St., Sioux City, Iowa.
*Alfred Grunwald, II, care of Marie O. Petersen, Krukow Kanal 8, St. Petersburg, Russia
Arville Kreher, VII, Webster School, Collinsville, Ill.
Charles Manship, III, 210 14th St., Sioux City, Iowa.
Florence McNulty, I, McKelvey School, Swissvale, Pa.
Margaret Morenzoni, V, Quarry Hill School, Westerly, R. I.
Elizabeth Olrecht, VIII, School 1.
*Walter Rhodes, V, Quarry Hill School, Westerly, R. I.
*Ruth Wickham, Hall's Free School, Beaver Dam, Va.

Fourth Prize, the Badge.

*Anthon Almskog, VI, 1007 Virginia St., Sioux City, Iowa.
Hazel Burns, III, 3 Clark St., Augusta, Me.
Albert Carlson, III, Warsaw, N. Y.
Bernice Carlton, I, 500 Fawcett Ave., Sioux City, Iowa.
Violet Castle, 542 E. Hawthorne St., Stockton, Cal.
*Mabelle D——, Belfast Ave.
Emory Delaney, VI, Easthampton, Mass.
Harmon Eberhard, V, 320 S. Madison St., Stockton, Cal.
Harold Grey, VI, Irving School, Berwyn, Ill.
Katie Halloran, VII, Dominican Academy, Fall River, Mass.
Catherine Hayes, VII, Webster School, Collinsville, Ill.

*A winner of honors in some previous contest.

Donald Johnson, IV, 411 Market St., Sioux City, Iowa.
Mildred Kienle, I, Easthampton, Mass.
E. Klippel, VIII, School 49, Baltimore, Md.
Ellen Kock, III, 709 Nebraska St., Sioux City, Iowa.
Grace Lawler, V, Florence, Mass.
Joseph McGlover, VIII, Far Rockaway, N. Y.
Annie Mushkin, IV, 612 West 7th St., Sioux City, Iowa.
Ione Ostle, VIII, Collinsville, Ill.
James Patrick, VII, Provincetown, Mass.
Ewgeni Polchanow, I, care of Marie O. Petersen, Krukow Kanal 8, St. Petersburg Russia.
Eva Royce, VI, Five, N. Y.
Mildred Sullivan, VII, Dominican Academy, Fall River, Mass.
*Rosa Surm, II, care of Marie O. Petersen, Krukow Kanal 8, St. Petersburg, Russia.
Gustav Vehn, VI, 803 East Lafayette St., Stockton, Cal.
Alice Waltz, Florence, Mass.
*Lloyd I. Weed, 84 Broad St., Claremont, N. H.
Adele——, II, care of S. O. Wills, Manister, Mich.

Special Prize, Alphabet Packet

George Collet, 29 Ridge St., Fall River, Mass.
Mary L. Sterling, High School, Antwerp, Jefferson Co., N. Y.
*Benjamin Thibault, 429 Beach St., Fall River, Mass.

Honorable Mention

Paul Barnes, Sioux City
Myron Bartlett, Warsaw
Zyda Bornemann, Stockton
Annie Bruce, Sioux City
James Cheyeh, Florence
Isabell Churchill, Florence
Kendall Clough, Sioux City
Lucile Combs, Far Rockaway
Earl C. Cone, Claremont
*Leona Corbin, Easthampton
Manuel Costa, Provincetown
John Dick, Swissvale
Everett Durham, Five
M. Dutra, Provincetown
Marguerite Egel, Far Rockaway
Gladys M. Gohdes
*Lydia M. Greenway, Westerly
*Betty Gruenwald, St. Petersburg
Delpha Harper, Stockton
George Hartung, Edwardsville
Celia Holmes
Elmer Johnson, Sioux City
Simon Jorgerson, Manister
Barrett Kneedler, Collinsville
Doris Knight, Stockton
*Jennie Kondraljew, St. Petersburg
Natalia Kowolenko, St. Petersburg
Harry McGuire, Provincetown
Harry Mosby, Sioux City
Ruth Nelson, Sioux City
Marcella Powers
Amelia Ramos, Provincetown
Gisba Selcan, Easthampton
Clifton Shaw, Easthampton
Elizabeth Silva, Provincetown
Ernest C. Silva, Provincetown
Frank Slack, Swissvale
Gertrude Slattery, Florence
*H. Wellmer, Baltimore
Myrtle Westfall, Sioux City
Madeline Worthington, Five
— —Zuyeski, Easthampton

*A winner of honors in some previous contest.

The constructive work never appears in the contests in such profusion as nature drawing, pictorial drawing, and design. Nevertheless, the jury received quite enough to show that the quality of such work is improving thruout the country. The work still indicates haste on the part of pupils, possibly both pupils and teachers. Really fine craftsmanship demands time. It cannot be hurried.

No package of drawings gave the jury greater satisfaction than that from Russia. It is the second package which has come from that country. The drawings were by St. Petersburg pupils. Some of the colored paper-cutting from mushrooms was original in design and admirably executed.

The object which received first prize was a little pocket book made of leather and leatherette, by Gabrielle Thibault of the Dominican Academy, Fall River, Mass. Gabrielle had won a special prize in a previous contest. This work gave no suggestion of haste. It was a thoroly workmanlike bit of handicraft, good in design, both in the selection of materials and in its form and color.

The work submitted was characterized by many intelligent variations of problems suggested by The School Arts Book. Notable among these was the work from Provincetown, Mass., where the teacher had helped the pupils to work out a model of the Pilgrim Monument at Provincetown after the manner of the Canopy at Plymouth. If the Outlines in The School Arts Book stimulate original thought and work they have served their highest purpose.

Please remember the regulations:

Pupils whose names have appeared in The School Arts Book as having received an award, must place on the face of every sheet submitted thereafter a G, for (Guild) with characters enclosed to indicate the highest award received, and the year it was received, as follows:

These mean, taken in order from left to right, Received First Prize in 1905; Second Prize in 1906; Third Prize in 1907; Fourth Prize in 1906; Mention in 1907. For example, if John Jones receives an Honorable Mention, there after he puts M and the year, in a G on the face of his next drawing submitted. If on that drawing he gets a Fourth Prize, upon the next drawing he sends

in, he must put a 4, and the date and so on. If he should receive a Mention after having won a Second Prize, he will write 2 and the date on his later drawings, for that is the highest award he has received.

☞Those who have received a prize may be awarded an honorable mention if their latest work is as good as that upon which the award is made, but no other prizes unless the latest work is better than that previously submitted.

☞The jury is always glad to find special work included, such as language papers upon subjects appropriate to the month, home work by children of talent, examples of handicraft, etc.

☞Remember to have full name and mailing address written on the back of each sheet. Send the drawings flat.

☞If stamps do not accompany the drawings you send, do not expect to obtain the drawings by writing for them a month later. Drawings not accompanied by return postage are destroyed immediately after the awards are made.

☞A blue cross on a returned drawing means "It might be worse!" A blue star, fair; a red star, good; and two red stars,—well, sheets with two or three are usually the sheets that win prizes and become the property of the Davis Press.

From a pencil drawing by James Hall

A Group Interpreted in Values
With a tint of one color

Frontispiece by courtesy of Atkinson, Mentzer & Grover, Publishers
"The Applied Arts Drawing Books"

Offset Printing from Photo-Litho Plates
by the Goes Lithographing Co., Chicago

The School Arts Book

AN ILLUSTRATED MONTHLY MAGAZINE for THOSE INTERESTED IN DRAWING *and the* ALLIED ARTS

HENRY TURNER BAILEY
EDITOR

September to June inclusive $1.50 a year, in advance

VOL. IX FEBRUARY, 1910 NO. 6

Entered at the Post Office at Worcester, Mass., as second class matter, August 17, 1903

CONTENTS

The Milwaukee Meeting — Arthur D. Dean
Teaching the Principles of Representation — Mary A. Pearson
Educative Values of Drawing — Henry Turner Bailey
Color — Louis W. Wilson
Studies in Space-Filling — Alice B. Muzzey
Kite Craft — Charles Milan Miller
Annotated Outlines, March, with Illustrations, Reference Material
The Workshop—Woodworking—A Monitor — Frank G. Sanford
Weaving—A Hood and a Toboggan — Katharine F. Steiger
Needlework—Swedish Costume — Blanche E. Hyde
Metalry—Night Light — Augustus F. Rose
Editorial: Valentines; Washington and Lincoln papers; Notes, Editor
Helpful Correspondence School Arts Guild The Arts Library
Reliable Advertisements Trade News

Published by THE DAVIS PRESS, Worcester, Mass.

COPYRIGHT, 1910, BY THE DAVIS PRESS. ALL RIGHTS RESERVED.

THE STRENUOUS MARCH

Will soon be here with its spring storms and pioneer birds. It will bring also the Spring Number of The School Arts Book, with an illustrated article on Bird Study, by B. S. Bowdish, Special Inspector of Wild Birds and Animals, U. S. Department of Agriculture; an illustrated article on the Insect, Bird and Animal Stencils of Chuigi, by Walter J. Kenyon of Alameda, California; an article on Civic Pride in Public Schools, as expressed in unique schoolroom decorations at Wickford, Rhode Island, by D. B. Updike, Master of the Merrymount Press, Boston; and with many other valuable additions to our common wealth.

"If you keep step with The School Arts Book you march in the van,"—so they say.

The School Arts Book

Vol. IX FEBRUARY, 1910 No. 6

THE MILWAUKEE MEETING

FROM Maine to Montana, New Orleans to Toronto, manufacturers, labor leaders, social workers and educators gathered in Milwaukee the first week in December to attend the Third Annual Meeting of the National Society for the Promotion of Industrial Education. One immediately raises the question, "What has 'education' to do with such varied interests? We have always assumed that the professional educator was the one to hold the helm of the school craft. Can it be true that the ship is to be piloted by others? Is the schoolmaster to be a deck hand?" Not necessarily. School interests, like shipping interests, are enlisting the services of other people. The captain uses the sailing charts worked out by the scientists, the weather charts issued by the Weather Bureau, the charts of heavenly bodies furnished by the astronomer. Likewise, the schoolmaster has called for the services of other experts. The significance of industry in the social and economic life of our people is so influencing the traditional school that the ship burdened with many interests, can no longer be guided by the older charts.

We are learning that the mind may be trained thru many subjects; that some subjects or processes are best for one group of persons and other processes for other groups; that all effective education develops out of a child's experience; that education should have relation to vocations or to the pupil's part in life; and finally, that every school should be the natural expression of the life of its community.

Laymen and professionals are recognizing that "industrial education," used in its broadest sense, is in no way antagonistic to the general function of all education which is to develop and

train the mind. Moreover, they are agreeing that our schools must be redirected thru recognizing that they must be adapted to the needs of our people, and that their subject-matter must be taught with an economic as well as a social purpose in mind.

Hence, the call for new sailing charts, for new sailing orders, and new ports of entry—an educational system that will recognize every factor that means much to the people. President Van Hise of the University of Wisconsin, in speaking of the work of the extension courses for artisans, voiced prevalent sentiments when he said, "It will be the aim of the University to teach the artisan after he leaves school not only in advanced studies relating to his vocation but in studies which concern him as a citizen and which concern him as a man. It is our desire to open to all the way to a higher intellectual and spiritual life."

George H. Martin of Massachusetts, long an advocate of all that is best in education, in what was probably the most inspirational address of the occasion, emphasized the value of drawing and handwork in the elementary school as furnishing a common soil in which to root the specific shoe schools, textile schools, and agricultural schools that might grow out of such foundation work. He said, moreover, that "it is idle to train a generation of workmen who can produce fine things unless they are also trained to enjoy fine things. That refinement of taste which comes from art, literature and nature, is a legitimate and essential part of industrial education."

President Humphreys spoke of the important work that the National Society is doing in acting as a "clearing house"—an interchange of thought and action which must be loyal and frankly participated in by educators, employees, labor unions, and legislators. He expressed his belief that we are in the midst of a great task; that we must keep our temper and work for the best interests of our children, looking to the public elementary

schools to wisely and sympathetically co-ordinate their work with the work of the industrial and trade schools of all classes.

John Golden, President of the United Textile Workers of America, always a true friend of the right sort of fundamental education, made the point that pupils in these schools must learn the way a thing is done, why it is done, and the very best and most artistic way of doing it, coupled with an economic knowledge of the value of their labor. Organized labor will not deny the utmost of opportunity to its own children thru industrial education, if labor can have the confidence that what is to be done will be free from selfish exploitation and rest upon a truthful educational footing and be guided by the common advantage of all the interests concerned.

It was with special interest that the Convention heard the paper of Charles F. Perry, Director of Industrial Training in the city of Milwaukee. Mr. Perry has the enthusiasm, knowledge and interest of a leader. His school exhibit attracted the greatest attention. In his paper he clearly defined the place that trades schools have in Germany. In this connection he said: "We may return with her machinery and tools and teachers, but whatever we may gather and bring, the most vital and necessary thing—Germany's public opinion toward trade teaching—must not be left behind."

A new face of a new type of attendant upon the meetings of the Society, made a profound impression upon the Convention—Mrs. Raymond Robbins of the Woman's Trade Union League of Chicago. Her background of personal refinement and charm of manners, her years of experience with the Social Settlement and working girls, her knowledge of the debasing, and even immoral influences of the modern factory system, brought to the meeting a line of thought which, to those who had been accustomed to the time-worn arguments of material advocates,

seemed to come from another world. Mrs. Robbins' plea was training, trade training, and a knowledge of "collective bargaining" for the female factory operatives. In this connection she said, "The average person sees in the young girl only the potential wife and mother, for which position she ought to be qualified through training, and forgets the additional, and no less undeniable fact that for an average of seven years she is a breadwinner. It is no exaggeration to say that lack of equipment for her years of breadwinning, brings about results even more disastrous than does now her lack of knowledge of domestic arts. As a member of the great unskilled and unorganized groups, the young girl acts as an under bidder in the labor market, and by accepting poor wages and long hours, by lowering the standard of living, she is instrumental in causing the greatest possible attack upon the home."

Several speakers emphasized that too many restrictions must not be put upon the trades school; that standards of age should not be a large determining factor. To permit too many restrictions is to confound the school with the trade, to make the school more important than the trade. In this connection, Louis Gustafson of St. Louis stated, "No hard and fast rule can govern. If we err, it must be on the side of richness, on the theory that the better the preparation the better the accomplishment—a study of individuals with varying aptitudes, rather than inflexible requirements. A carpenter is not only a carpenter but a man, and the assumption is fair that the better the man the better the carpenter."

In the discussion on Corporation Schools, J. J. Eaton of Yonkers, N. Y., brought out the point that while corporations are popularly supposed to be without souls and hearts, there is no question that a successful one possesses brains. It is a significant point that many of these corporations have established

apprentice schools which they direct and maintain. However, nearly every speaker, in common with Mr. Eaton, acknowledged that industrial education must be under the control of public school authorities if we are to value the democratic control of education.

Attention was given to the value of evening school instruction. Two leaders in this important work—Professor Shearer of Cincinnati, and Louis Rouillion of New York, made it clear that "learning and earning" should go hand in hand for a period of years; that the night school is an important adjunct and feeder to the many business interests of the days, and that for permanent success it should have the directing hand of men of affairs and teachers who are masters at their craft.

There was little danger that the Convention would resolve itself into a Mutual Admiration Society, after Jesse D. Burks of Philadelphia had delivered an address on "Results versus Resolutions." The pilots of the industrial education craft had been sailing on smooth seas, when suddenly there loomed up a rock in the shape of an expert from the Bureau of Municipal Research, who made a vigorous plea for the practical development of some of the plans for industrial education now so freely discussed, and concluded his remarks with the words, "What is needed now is not more words but more works; not more ideas but more experiment; not more publications but more boys and girls with adequate equipment for industrial pursuits."

Mrs. Anna Garlin Spencer of New York has, on a number of occasions, eloquently pleaded for reform in the common schools. Her address at Milwaukee was no exception. She emphasized that industrial education should make it its business to aid substantially in demanding a radical readjustment of obsolete ideals and methods in the people's schools; that it should relate itself strictly and persistently to the social need for race

development in health and work—efficiency, all around the circle of human effort. She desired "something which could take the place of the old half-conscious training in judgment, in practical skill, in ability to be useful in a Jack-of-all-trades sort of fashion, which children received in their homes in the old handicraft and domestic era of industry." And again, "not the 'science of farming,' but the art of making things grow; not the 'science of foods' and the 'reasons for processes,' but the art of cooking and cleaning and beautifying the home." With characteristic earnestness she advocated a form of education between twelve and sixteen years of age that would let children learn by doing, as many kinds of things,—manual, artistic, scientific, literary, useful, ornamental, what not—as the school can bring forth.

Altogether, the meeting was the most successful one ever held. The exhibit of industrial and trades school work was the most complete that has ever been presented in this country, and it set a standard which it will be hard to maintain in future meetings. The Chicago meeting of two years ago showed a strong under-current of discord—a lack of get-togetherness on the part of the various social and economic interests concerned. The Atlanta meeting of last year brought together in the South land a group of people who perhaps under the influence of Southern hospitality, skies, and balmy air, managed to co-operate for the common cause. The side trip to Tuskegee Institute only seemed to further the feeling of professional comradeship. The Milwaukee meeting brought together a strong body of earnest, thoughtful and efficient workers from a varied field of industrial and trades school activities—people who, without a single exception, agreed that there was no hard and fast rule of procedure; that industrial education had its human aspect; that it was bound to influence the present work of the schools, and that no

real and lasting progress will be made until it does redirect these schools in the interests of the people. The election of Professor Charles R. Richards of Cooper Union, New York, as the new President assures us that the Society will continue to broaden its treatment of the problem of industrial education, and is in itself a guarantee that it will be directed towards the interests of all parties concerned—educational, economic and social.

ARTHUR D. DEAN
Chief of the Division of Trades Schools
Albany, New York

TEACHING THE PRINCIPLES OF REPRESENTATION

WITH the present day interest in handicraft and the joy and enthusiasm with which the children in our Public Schools attack the many lines of constructive and decorative work now so generally introduced, there is a temptation to shorten the hours devoted to Representation, since the children do not cry for it. We do well, therefore, to remind ourselves of its importance as a useful language in the home, the school, and as a preparation for life, whether in the realms of science, mathematics, art, or the many skilled industries. But perhaps the most important reason for the study is its unrivaled value in training the senses, thus opening the way to a full enjoyment of whatever is beautiful in our home—the world.

Sometimes our personal experiences bring the truth home with force. Once, while crossing the ocean, I had for a roommate a dress designer who told me how much the power to sketch assisted her in planning costumes and how much she used drawing in recording notes on what she saw in the designers' establishments which she visited in London, Paris and Vienna. She was eager to know about the theory back of Representation, so we had a good time discussing the matter. For the drawing of hats and skirts she needed to understand Foreshortening with variations as found in the hemisphere and frustum of the cone, the representation of equal and unequal circles at different levels above and below the eye. We discussed good proportion in the human figure, too, analyzed curves and studied how to express texture in line drawing.

How often we hear people express regret that drawing was not taught when they went to school! Now while all makers of programs admit that drawing is very important, the time allowed for the preliminary training is merely sufficient for an introduction to the various phases. Our pupils who have a natural liking for drawing get a start, but the average child is

not permitted time to conquer the difficulties which beset his path to achievement. In order to accomplish what we would with our pupils, the crying need is for the necessary time to drill in order that the fundamental truths taught may sink into the pupil's consciousness, take root and bear fruit. It takes quite as much time to train pupils to express themselves well by means of drawing as to produce good oral and written word expression and have it become a habit.

With so meager an amount of time allowed our subject, the teacher of drawing has supreme need of being an expert in economizing time in order that every possible minute may count for results in real drawing. In our teaching then, we must guard against much talking and little doing. We can arouse interest and direct the observation of the primary children by a very few words, first of encouragement and then of approval. In the grammar grades, when developing the study of principles, time is often used in extracting verbal answers to questions that would better be answered thru the children's drawings. The teacher should constantly study to find how few words are necessary to awaken interest, to relate the work to that which preceded, to get the child to really study the object before him, rather than to shoot a careless glance at it, and after the drawing to make a critical comparison guided by his knowledge of principles, to discover his own mistakes and then to "try, try again." While the lesson is in progress the teacher should watch the clock to see if the drawing or the talking is given the more time.

What shall the children draw? Anything and everything to be sure, but the subject matter to be taught under the name Object Drawing must be arranged, presented, and drilled upon, quite as carefully and progressively as is the subject matter in Reading, Arithmetic, Grammar, and all the rest. Children like to feel that each lesson is harder than the preceding and that

each year's growth is marked by the power to do harder and more important work.

In the beginning comes the free illustrative sketching or the story telling by drawing, and, of course, the more the better if done thoughtfully. The teacher's mission is to try to read the story the child has told and to suggest good subjects for more, if need be; then as the work progresses she must watch to see if observation of form grows more definite and if relative proportions are better expressed. Are the trees the right size for the house? Can the people go into the houses or are they too big or too small? Can we tell where the sky stops and the earth begins? Are our nearer trees and people larger than those far away? The teacher must draw with and for the children often, that they may catch ideas. The children's drawings must be exhibited to the class and discussed for encouragement. Children's drawings from out of town are very inspiring if an exchange can be arranged.

The paper cutting either with or without a guiding line is excellent. The all-important purpose is to express definite ideas of shape and proportion. Painting in silhouette gives additional drill on seeing and expressing proportion. While this work is particularly good for the first five years it is often very helpful in the upper grades wherever pupils find it hard to express correct proportion. First studies in the representation of difficult cylindrical or vase forms are sometimes best recorded by cutting or painting in silhouette.

The children early absorb the principle that, "Distance decreases the apparent size of objects" so that we may draw whole cities even on a small piece of paper if only we are mindful of shapes and relative proportions.

The next step is to study the changing appearance of an object when seen at different levels above and below the eye.

Spherical objects are perhaps the least complex, so we choose the kindergarten ball or a child's "return ball," oranges, apples, tomatoes, beets and potatoes. These present spots, stems, and depressions of surface varying in appearance with changes of level. Croquet balls, lily bulbs, onions and pumpkins serve to show how bands and lines vary in appearance according to position with reference to the eye level. Such studies are interesting to children because they may be done with success, and success is a most important factor in sustaining interest. Following the spherical cone may come the hemispherical, conical, cylindrical, cubical, the square and triangular prisms, and the square pyramid. These forms modified and in combination present all the problems in object drawing that the average individual will be likely to encounter. They will do for a start.

A generous supply of needed forms is rarely put into the hands of the teacher. They can only be had by searching or by construction. Nature furnishes many in the trees, fruits and vegetables. Oak tag or drawing paper will furnish many more, and perhaps the manual training classes will provide boxes and bird-houses or other equally good subjects. Everywhere, well shaped bottles, flower pots, standing and inverted, cups, glasses, strawberry boxes, candy boxes, books and magazines may be collected.

The sensible teacher is not searching for the unique and unusual objects to draw so much as to impress the fundamental truths of representation by the use of familiar and inexpensive objects such as a little thoughtful searching will produce anywhere. These plain, familiar objects present the elements or grammar of the art of representation to the beginner in simplest form and are appropriate to the classroom time devoted to the study, the drawing, and the necessary criticism. Eye training and that knowledge of guiding principles which makes the pupil

The Elf and the Dormouse

Under a toadstool
Crept a wee Elf.
Out of the rain
To shelter himself.

Under a toadstool
Sound asleep.
Sat a big Dormouse
All in a heap.

Trembled the wee Elf,
Frightened and yet
Fearing to fly away
Lest he get wet.

To the next shelter,
Maybe a mile!
Sudden the wee Elf
Smiled a wee smile.

Oliver Herford's Elf and Dormouse was illustrated with great delight, following the study of the hemisphere.

Tugged till the toadstool
Toppled in two
Holding it over him,
Gayly he flew.

Soon he was safe home,
Dry as could be.
Soon woke the Dormouse—
"Good gracious me!

"Where is my toadstool?"
Loud he lamented
And that's how umbrellas
First were invented

These drawings by H. L. Pratt, a ninth grade pupil, are typical of the results secured

his own critic are what we want and hope for as the result of our co-operative toil.

The larger the class the more necessary it is to have all studying from uniform objects when a new principle is presented. A geometric type or a close approach, constructed by the child himself, on a three or four-inch base is as good an object as can be devised. Of course, no one wants a diet of geometric solids but they may be taken in small doses, say two or three a year, with beneficial results. Pupils thus fed and nourished know why a drawing is right or wrong. They see and draw with understanding.

For the first lessons on Foreshortening or Convergence the type form chosen for study should be held in the pupil's hand and at arm's length. The face should first be observed in its true shape or unforeshortened. The circular face of the cylinder or the square or rectangular face of the square prism should be seen directly opposite the eye a perfect figure; then its shape should be studied as it is turned slowly backwards until it is lost sight of entirely in the straight line. Next, have it observed as it is slowly raised above eye level and dropped below and compared with its unforeshortened or true shape and its most foreshortened appearance—the straight line. All this study is best impressed by being recorded with rapid sketches on paper and at the blackboard, followed by critical comparison between the drawing and the object.

Next study the object on the pupil's desk if it is not too small and close to his chair; in that case, have it placed on the desk in front or on a book held perpendicular to the child's line of sight and placed on the desk opposite.

Teachers ought frequently to take time to sit in the children's seats and draw from objects placed as the children are required to place theirs. Such practice teaches many things and counts

much towards successful results. One finds out whether the perspective effect is good or not and if a different background is necessary to make the shape definite. If the same grade of pencil is used, the teacher will discover whether it is too hard to be expressive.

Following the study of the type and similar forms, the intelligent copying of such excellent outline drawings as the buildings drawn by Mr. C. H. Woodbury in connection with his pencil sketches of "Our Native Trees" is worth while. If there are interesting houses around about the school or to be seen from the windows, encourage the children to sketch them.

Illustrations involving, in simplest form, the principles under consideration, selected from the advertising columns of the magazines and good furniture catalogues such as the "Craftsman" furnishes, are useful for study. They show the correct observation of principles, and the objects may be redrawn or translated into line, with the teacher, as a means to further drill.

Home work, both from memory and from the object, is important.

After teaching Foreshortening as found in the hemisphere and square prism, "placed parallel," and similar objects, give the children such a problem as this. Draw a picture of the three bowls of porridge standing on the table that Goldielocks found when she visited the house of the three bears.

The most enjoyable work by way of testing knowledge is the illustration of well chosen stories, rhymes and poems. Mother Goose and Peter Newell will fit almost any need. One year we gave a Mother Goose rhyme to every grade and found that many upper grade pupils did not know these classics. We never had so many eager questions asked as to how to draw the untried objects involved in rhyme. They served as a quickening influence to a lively interest in object drawing. Some of the stories

in the "Book of Knight and Barbara" by David Starr Jordan are very good to use in lower grammar grades. Oliver Herford's "Elf and Dormouse" was illustrated with great delight, following the study of the hemisphere. See pages 572 and 573.

The School Arts Book for December has given us under "Annotated Outlines" a wealth of helpful suggestions as to what to teach and how the drawing may be related to other language work and what good results are being accomplished far and near. The receipt for skill should be noted, held and riveted in memory, namely, "Repeated observation, repeated well-informed expression, these will give skill in drawing common objects correctly."

MARY A. PEARSON
State Normal School
North Adams, Massachusetts

EDUCATIVE VALUES OF DRAWING*

WHEN drawing is well taught its educative value is exceedingly great. It is second only to that of language.

First, drawing tends to develop the power to see.

The average man sees imperfectly and images dimly. As Professor James says: "His images have broad fringes." He cannot tell, for example, where the ordinary Roman letters are shaded, nor the shape of his own boot, nor the color of his friend's eyes. His observation with regard to all material things is loose and unreliable. As Walter Smith used to say: "Unless he has a trained eye, his testimony in court concerning any material fact is not to be trusted." As Asa Gray used to say to his students when studying sedges: "Unless you draw, you will not see." "A pencil is one of the best of eyes," said Agassiz. Graphic representation helps to focus the eye upon the object, as the thumbscrew focuses the camera, or as an adjusted lens corrects defective vision.

Clearer vision of natural objects enhances one's enjoyment of nature and enriches the content of life. All contours of leaves, the articulations of plant structure, the curves of unfolding petals, the delicate mottlings of insect wings, the grooves of shells (which Tennyson called "miracles of design"), the lines of health and movement in birds, in animals, and in the human figure, the subtle tints and shades, sharp glints and darks, which objects present to the eye under sunlight, the exquisite gradations of tone and hue, not only in objects everybody recognizes as colored, but in the gray and unobtrusive features of anything, become sources of keen pleasure to him who sees with trained vision.

For lack of the close observation which a training in representation would supply, the average man has no clear images of his own with which to read or think. Consequently the stimuli which cause a satisfactory reaction in his brain must be intense.

* From an address on "Graphic Art as a Factor in Public Education," before the Forty-fifth Annual Convocation of the University of the State of New York, Albany, 1907.

His music must be brass band music, his color thrill can come only from a gorgeous sunset or the Berkshires in October. His news must be served up by yellow journals in flaring headlines and dramatic pictures. He can be reached only by colored posters and advertising signs 10 cubits high. His recreations even must be highly artificial. At the coast the sweep of sand and sea, the blend of the dim horizon, the grace of the breaking wave mean so little to him that he must plant on the crest of the beach his merry-go-round, his roller coaster, and all the other noisy and vulgar attractions a perverted ingenuity can invent. The majesty of Julius Caesar and King Henry as they walk thru Shakespere's printed pages, and the calm beauty of the old king who wrote the Shepherd Psalm, are lost on the man whose power of imagination is atrophied. He must have, instead, the noise and the glitter, the reality and the vulgarity of the vaudeville.

The importance of clear-cut, three-dimensioned images for the imagination and the reason to use can scarcely be over-emphasized. The minister who reads the matchless words of the Bible in droning fashion so reads because he sees nothing. Booth, Jefferson, any man with power of imagination could not read that way. The man who fails in business or in the social world fails largely for lack of "grasp," as we say, the power to image and forecast conditions, to see thru to the other side of the problem, to hold the totality clearly in his mind and read it thru and thru. As Dean Shaler once said, "The value of drawing in all departments of science, not only as a language but as a discipline of the mind, can hardly be overestimated. Many students entering Harvard University can think in one dimension, some few in two dimensions, but those who can think in three dimensions are exceedingly rare." Every department of human activity offers unlimited opportunity to men of vision.

But in the second place the study of graphic art as pursued in the schools develops the power of expression.

It is unnecessary to review in detail the value of this power in almost every human occupation. In a conference at Harvard University on the relation of the high school to the college in 1903, President Eliot said: "I have recently examined all the courses offered by the university, and I find but one (the course in theology) in which a knowledge of drawing would not be of immediate value (and even there I think it might help in some cases). The power to draw is greatly needed in nearly all the courses, and absolutely indispensable in some of them. A very large proportion of studies now train the memory, a very small proportion train the power to see straight and do straight, which is the basis of industrial skill."

Whether a carpenter remain a carpenter or become a foreman or contractor depends largely upon his power to read a working drawing. Whether a machinist remain a machinist or become a master, depends largely upon his power to sketch his ideas of mechanical construction. Whether a printer remain a printer or become a designer of fine printing depends largely upon his power to lay out a job with his pencil. The advancement of any one in his profession—of the designer, the illustrator, the architect, the house furnisher, the landscape gardener, not less than the painter and the sculptor—depends primarily on this power of graphic representation by means of line and color.

But aside from this fact, there is in the mere power to express oneself graphically a source of legitimate pleasure not to be despised. The craving for self-expression is universal and insistent. The love of self-expression graphically, lies at the basis of amateur photography. The pleasure which thousands of people derive from the camera is immense. Only one other group of people who enjoy nature, get greater pleasure from

making pictures, namely, those who can make them with the pencil and brush; who can record what they wish to remember without recording the confusing details which encumber it. Representation is to the artist re-creation, and is accomplished with a passionate pleasure such as only those can appreciate who have had the experience.

In the third place, the practice of graphic art develops the power of appreciation.

We are the children of the race intellectually and spiritually as well as physically. The world is full of good people who in the realm of the arts are bovine. They cannot tell one tune from another. They do not know a Turner from a Teniers, or a Botticelli from a Burne-Jones. They pass and repass the far descended venerable ornament exquisitely cut upon the porch of a colonial house, and know nothing of its presence, much less of its eventful history. They sit on Sunday in a church where the sacred symbols, first scratched with trembling hands on martyrs' graves, blaze forth their messages from glowing windows, or whisper them from font and table and altar; but having eyes they see not, and having ears they hear not. The great world of art is to them a nonentity. A Latin grammar, a Greek text, an algebra, a geometry, a bank book, a mill sheet, a financial report, is the measure of their horizon, and the arc of their sky. A man submerged in business, entombed in a shop, buried in a ledger is an intellectual and spiritual bankrupt.

The child never attains manhood until he secures the keys to the great treasure-house of literature, music, architecture, sculpture, painting, and the other arts, which record the experience, the aspirations and the ideals of the brightest and best of those who have gone before. The work of those men is another source of pleasure and of satisfaction which the man who would live the larger and more abundant life cannot ignore. Every attempt

to represent a blade of grass, a leaf, or a flower, every attempt to catch the movement or gesture of any living thing, prepares the mind as nothing else can for the appreciation of the work of Dürer and Landseer, of Rosa Bonheur and William Hamilton Gibson. Every attempt to represent a tree or the sky, a body of water or the sweep of hills will enhance one's appreciation of Claude and Turner, of Corot, Mesdag and Fritz Taulow. Every attempt at illustration and pictorial composition will open the eyes to the almost marvelous skill of the old Italian masters, of Millet, Burne-Jones, and Whistler. Every attempt to put down the color of a flower, or a shell, or a spray of autumn fruit, or a spring landscape, or a moonlight night, will enhance one's enjoyment not only of the work of the Venetians, but of the rug-makers of the Orient, of the potters of China and western Europe, of the great jewelers from the days of the Etruscans to the present moment, and all those who have wrought in fabrics with the loom or the needle. All this appreciation of the work of men will send the happy spirit to nature again with keener eyes. The man of the anointed eye will see her as the artists and poets have always seen her, so beautiful that the shadow of a mountain daisy on a stone will inspire a poem; the glint of light on rind or fur or feather, inspire a picture, and the gloom of the calm night, inspire a symphony.

And lastly the influence of graphic art as a factor in public education is important because by means of it, when our pedagogical machinery is perfected, we shall be enabled to discover every particle of talent possessed by the children under our charge, and to develop it for the good of all.

The heart of man is never satisfied. We shall go on demanding illustrated books and papers, paintings to hang upon our walls, pictures spread before our eyes in the landscape, beautiful garments and jewels, beautiful temples, civic buildings

and homes; and the men and women who will produce all these in each generation are among the boys and girls in the public schools of the preceding generation. The character of the art which they will produce will depend very largely upon the amount of training they receive, and the extent to which they have been made familiar with what genius has done before them. We cannot too early discover these precious vital elements and begin the salutary discipline which shall enable them to carry the artistic triumphs of the race to yet higher levels.

HENRY TURNER BAILEY
North Scituate, Massachusetts

A group illustrating a line in "Old King Cole," such as might be attempted in an eighth grade.

The self-explaining color terms. Color quality illustrated. A pigment is said to be saturated when it stands for a given spectral hue. It is blanched when carried toward light, merged when carried toward darkness. The pigment that represents a merged color is a tincture. Tinctures may be blanched.

COLOR

I COLOR QUALITY *

IN going over the works written on color during the last century the intelligent student is led to ask such questions as these:

Why do modern color theorists try to improve on Newton's classification of the hues of the color spectrum when it is so universally understood?

Why do most color theorists employ the musical analogy?

Why should so much space be devoted to explaining that pigments (paints) are not lights?

Why are synonymous terms used in specific ways, each demanding special reference when encountered, as, for instance, color, hue and chroma?

Why should a suppressed color be called a hue, as, for example, a pigment resembling yellow ochre may be of a yellow hue but why call it, the pigment, yellow hue; and in this way remove the term hue from the spectral color?

Why should color names be used which may only be understood by a knowledge of the thing from which the name has come by reason of association, as "salmon pink," "mouse color," "raw sienna," etc.?

Why should quantity and quality of light be confounded, involving such terms as "value," "tint," "shade," etc.?

In answer to these questions, let me submit the following statements:

There is no necessity for improving or changing Newton's classification of the spectral hues; they are universally under-

*This is the first of a series of three articles on the problem of Color. The author was trained in the Art Institute of Chicago, Julian School, Paris, and the Royal Academy of Munich. He is an instructor in Drawing and Painting, Life and the Antique, and in the Theory of Color, at the Art Institute of Chicago. In an introductory word to the Editor, Mr. Wilson says: "Believing that much needless confusion has arisen in the teaching of color, I hope to present to the readers of The School Arts Book three articles dealing with the main causes of this confusion, and suggesting the remedy." Every thoughtful teacher will welcome anything which promises new light on the problem of securing fine harmonies of color. —Editor.

stood and may always be referred to with but little trouble anywhere the sun shines on this earth.

Very few writers on color or instructors in color do not use the musical analogy. One turns to it most naturally, for the easiest way to teach anything is by analogy.

Pigments are not lights, but they are our colors.

"Color," "hue," and "chroma" all mean the same thing.

There should be no mystery about it at all, color terms should mean exactly what they say; in other words, be self-explanatory.

The problem of color quality is merely one of color intensity. There is but one way in which color changes quality; that is by sinking into purple, thus becoming less intense. Why this has not been pointed out in color instruction is a mystery.*

European painters, for a long time, have pointed out the receding (suppressed) purple that was to be found in all painting of quality, and have advised "when in doubt use purple."

Orange, yellow and green sink into a purple that may be quite intense, while red, blue and violet sink into a purple that is in itself suppressed.

If two colors do not harmonize or go well together mix purple with one of them. If three colors do not go well together mix purple with one of two or them; and so on in combining four, five or six colors, add purple. And, if after adding purple the colors still do not go well together add some more purple.

If you succeed in combining your colors satisfactorily, you have done this, whether you realize it or not, either thru the mixing of the paint or by the choice of pigments.

*The inability to fix on the particular character of the purple to be employed in practical color mixing is probably the explanation. It was one of the basic principles of the so-called impressionists who employed a crude purple in all their shadows.

Purple is not a spectral hue but belongs to the eye; it is in some way inherent, probably sanguineous; at least, we have in the blood our standards for purple which vary from the color of the so-called blue-veins seen under the skin of the body, thru the purple venous blood to the red arterial blood.

Light and dark variations of color and proportions of color are beside the subject of color quality; they belong to the study of composition.

Confusion has resulted from the arbitrary use of color terms that did not explain themselves; the whole thing may be put in a nut-shell.

Color is a sensation; we use pigments to call up color sensations and, therefore, call them,—the pigments,—colors. When these pigments stand for the spectral hues we say they are saturated, and the only way they change quality is by sinking into purple. These saturated colors, before they become merged into purple, or at any stage of their sinking, may be blanched and that is all there is to color quality.

LOUIS W. WILSON

Instructor in the Art School of the Art Institute
Chicago, Illinois

STUDIES IN SPACE-FILLING

I. THE SQUARE

IN looking over plates of historic ornament, nothing is more in evidence than the matter of the complete filling of spaces. With the exception of the Chinese and Japanese (and we may always make a favorable exception of their skilful work), the Old Masters of design were not content to "spatter and spot" a plane, leaving wide fields of undecorated surfaces, but carried the ornament, be it carved, inlaid, or painted, well over the entire space. The structural quality of their work is also apparent.

The ornament is based on the lines that may most surely carry out this idea of structure, Plate 1. Beginning with the square we find these to be the governing principles.

Plate 2. Typical methods of arranging ornament within the square.

(1) The square is most often, and most properly, considered as something to be looked at from all sides, and therefore is decorated with a design starting from the center and filling to the corners, or the reverse; or with a design in the form of continuous borders of ornament.

(2) The square that may be considered as a panel, where the design is constructed on vertical lines. These arrangements are illustrated in Plate 2. The axes may be apparent or the design may be so balanced that the eye is not led in any special direction.

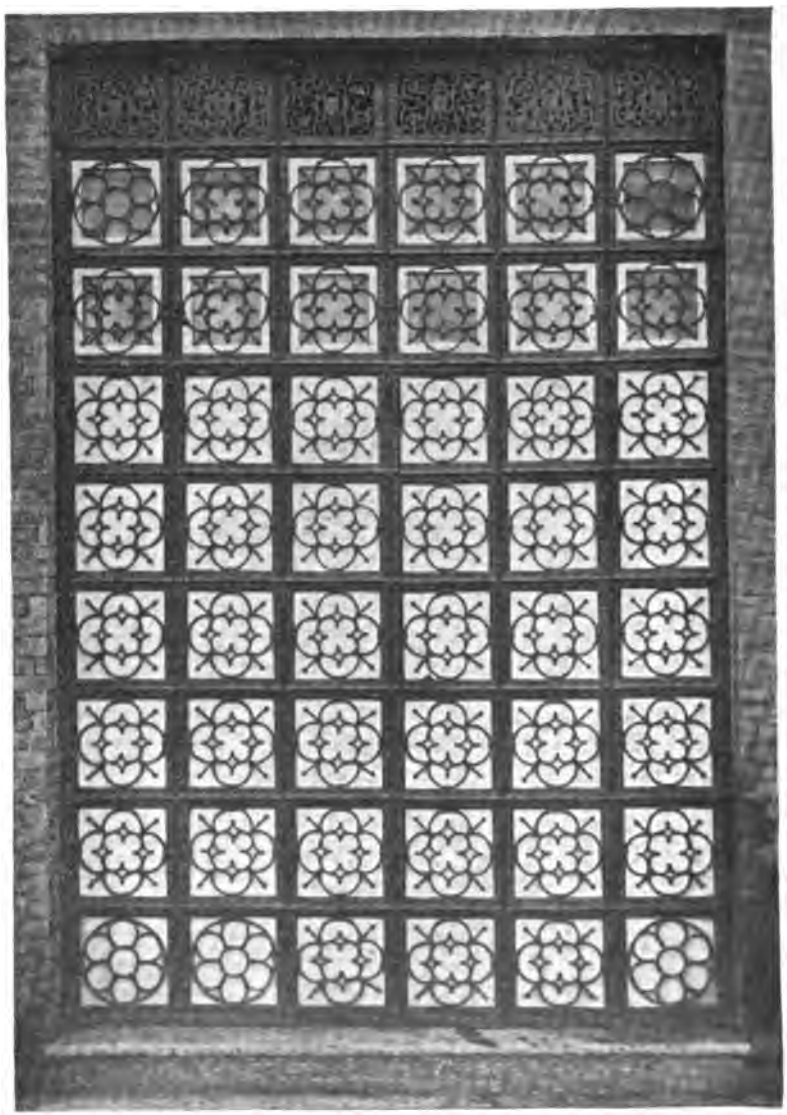


Plate 1. Wrought iron window, City Hall, Siena. The lines of the decoration seem to strengthen the lines of structure.

Plate 3. Examples of Greek painted decoration.

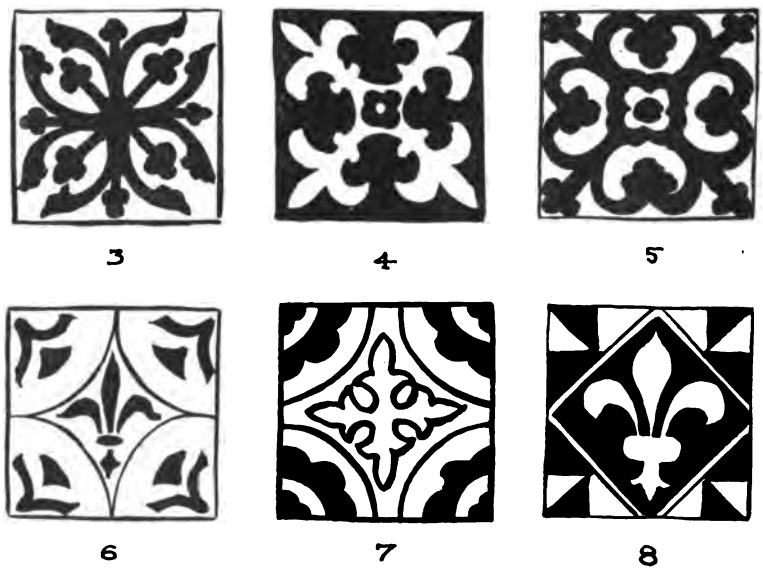


Plate 4. Examples of Gothic encaustic tile decoration.

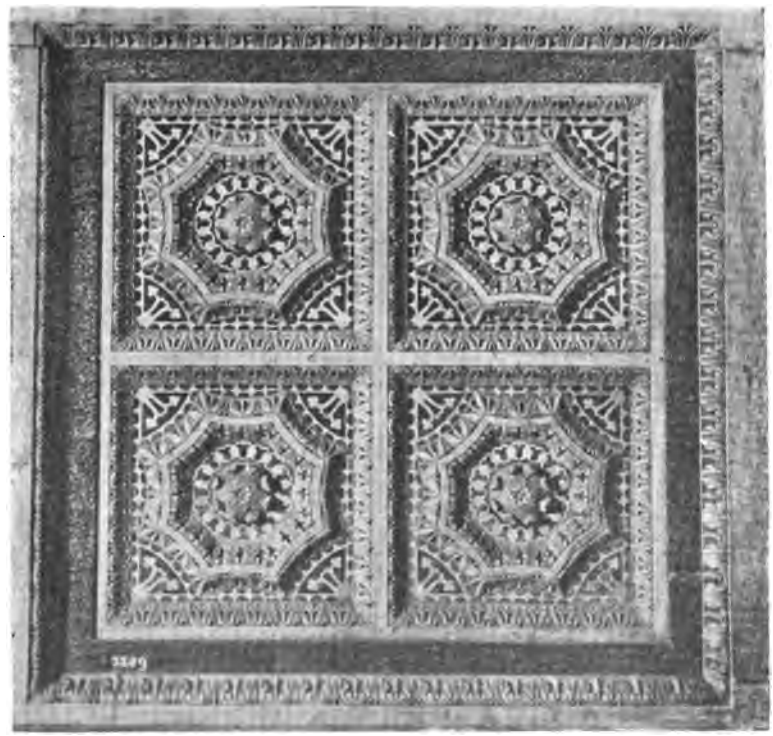


Plate 5. Ornamental work in marble from San Miniato, Florence.

Taking up the first of these methods of space-filling, we have the two pieces of Greek flat painted decoration, Plate 3, and the three examples of encaustic tiles of the Gothic art of the thirteenth and fourteenth centuries, Plate 4, Figs. 3, 4, and 5.

The second method of filling the square, by emphasizing the corners, is illustrated in the same plate, Figs. 6, 7, and 8.

This was seldom resorted to except when the square was to be repeated indefinitely, as in a tile floor. In this case the corners formed a new quadrilateral unit, its parts radiating from a center

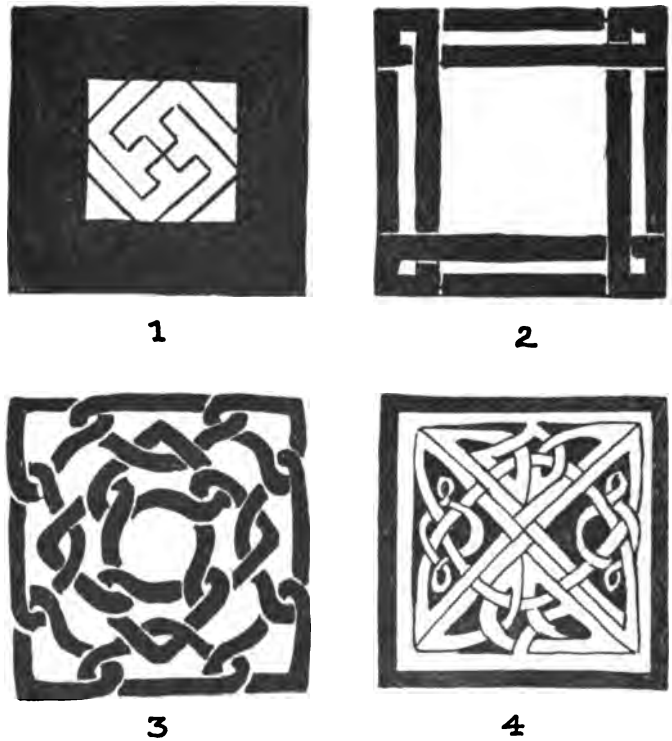


Plate 6. Typical modifications of the border treatment.

as in the previous examples. Another good example of the emphasis of the corner is Plate 5, marble ornament from the charming old basilica of San Miniato, overlooking the city of Florence.

Treatment in borders is seen in Plate 6. Figure 1 is from a Persian manuscript in the British Museum; Figure 2 is a Celtic ornament of the ninth century in the Bible of St. Denis. Figure

Plate 7. An unusual treatment of the square. Carved ivory panel of German workmanship.

3 is an interlacing from St. Mark's, Venice, in which the border nearly fills the entire square and suggests a radiating ornament. In Figure 4 the border fills the square and is radial in the arrangement of its principal parts. A notable illustration of border

Plate 8. One of the metopes of the Parthenon, illustrating treatment on a vertical axis.

treatment is to be seen in Plate 7, from a carved ivory cover in the Bavarian National Museum, Munich.

The vertical axis as the controlling motive is evident in the old Greek work, Plate 8, one of the metopes of the Parthenon; in the quaint Arabian ornament upon the walls of the old fountian in the court of a private residence, Damascus, Plate 9, and in the lovely panels of dancing and singing children from the cantoria in the Church of San Lorenzo, Florence, by Luca della Robbia, Plate 10. The balance of effect on a vertical axis is to be seen in such squares as the Gothic encaustic tile (tail-

Plate 9. Treatment on a vertical axis. Old Arabian fountain, Damascus.

Plate 10. Two of the panels from the Cantoria in the Church of San Lorenzo, Florence.

Plate 12. Free balance on a vertical axis. German work of the fifteenth century.

piece, Plate 11) of the fourteenth century, and the panels of the jewelry box of carved wood, Plate 12, German work of the fifteenth century.

Equal balancing of masses within the lines of the square is further illustrated in Plate 13, Figs. 1 and 2, inlaid wood,

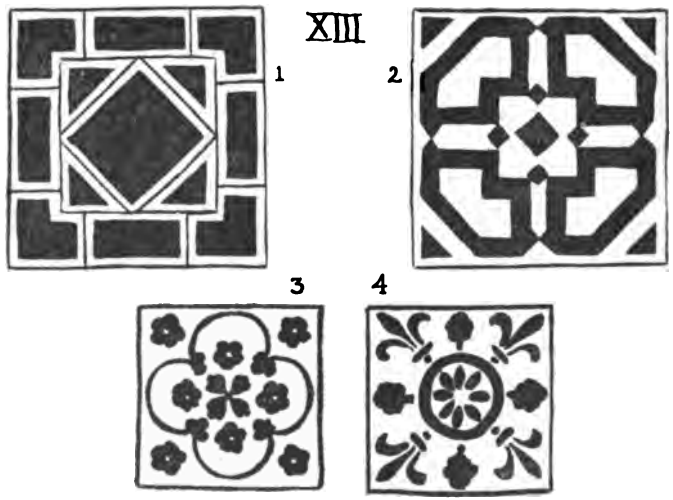


Plate 13. Examples of well distributed attractions within the lines of the square.

Arabian work of the Middle Ages, Figs. 3 and 4 Gothic encaustic tiles, thirteenth century; and in Plate 14, from the wonderful twelfth-century pavement in the Baptistery at Florence. Other examples from this same pavement are shown in Plate 15. More intricate devices for filling squares are to be seen in the carved oaken panel reproduced as Plate 16, from German Gothic work of perhaps the sixteenth century. A brilliant success in space-

Plate 14. Inlaid marble from the floor of the Baptistery, Florence. Twelfth century work.

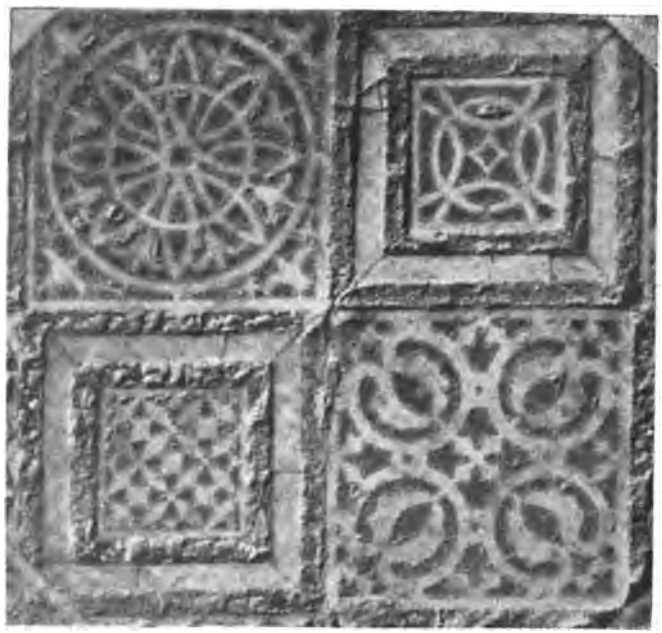


Plate 15. Inlaid marbles from the floor of the Baptistery, Florence. Twelfth century work.

Plate 16. Carved panel from a German treasure chest, probably dating from the sixteenth century.

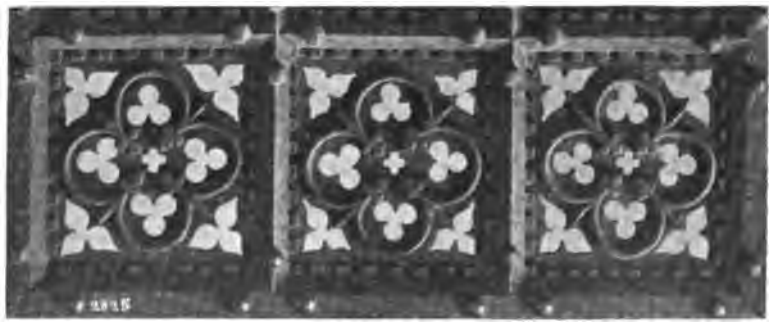


Plate 17. From a wrought iron grill. Tuscan work of the fourteenth century.

filling is the iron grill panel, Plate 17, Tuscan art of the fourteenth century in the National Museum of Florence.

All of these suggest endless new adaptations in printed ornament, clay, brass, wood, and embroidery.

ALICE B. MUZZEY

Buffalo, New York

Plate 11.

KITE CRAFT

"ATTENTION!" and in the army there is an immediate response. "Kites!" and in almost any group of boys there is a similar electrical effect. No matter how listless they may have been before, they are alert now. To change the figure, a magnet, charged with specific boy-like possibilities, has attracted them. The possibilities of kites are great; variety in kites is great; the pleasure of making and flying them is great; and the inventive development of the boy is great. Owing to these facts, kite-making is very valuable as a home occupation. It has the required attractive features. Any constructive work, to be useful as a home occupation, must not only arouse interest, but must maintain it thru much experimentation without the direct help of an instructor. Experiments may result in failure, but even that may be good for the boy, provided the failure is not so frequent as to be discouraging.

The Los Angeles boys have been planning, making, and flying kites during the past three springs. It is a seasonal occupation. Each spring the kites are exhibited at a kite tournament. These successful presentations of home work spur the lads on to greater effort, each in his own particular line. This last year the interest lasted beyond the tournament, and many worked out plans for the coming spring tackle. Only the simpler kites were attempted the first year. Judging by the pictures sent in of tournaments in various parts of the country, this will be quite true in any beginning. Kites with tails, tailless kites, a few box kites and two or three man kites, with parachutes, banners, etc., are about all that may be expected. The second year there will appear better construction, more complex combinations, and a greater variety of forms. The third year will develop more harmonious color and decorated effects, greater pulling capacity, more skilful manipulation, and still more complex construction.

Is it possible to develop kite-making still further? Yes; the work is only begun; many possibilities are untouched, others merely introduced. Five of these possibilities deserve special mention:

a. Aeroplane models to be flown on kite lines.

b. Moving parts of figure kites, as head, ears, eyes, mouth, hands, etc.

c. Windmill kites, wherein most of the kite revolves.

d. Box kites modified so as to give hollow forms of birds, etc.

e. Mechanical devices.

For information regarding the construction of simple kites, the reader is referred to an article on "Construction and Flying of Kites," by the writer, in the Manual Training Magazine, February, 1909. This article will deal more fully with artistic and decorative effects than with construction; and much more space will be given to modifications of box kites.

A brief survey of the development of kite craft, shows rapid progress the last few years. The English bow kite, about the only kite known in this country a few years ago, has been supplanted by such a variety of forms, that we have learned that almost any shape desired can be sustained in the air. When it was discovered that a kite with a projected keel would fly without a tail, a great host of kite-lovers promptly manufactured one. The tailless kite became very popular, and has remained so to the present time. Someone proposed making a paper box light enough to be carried on high by the breeze; some said that was impossible, but the box kite is now a success. When some proposed carrying passengers above the clouds in box kites, the doubters said that could never be, and yet, even that has come to pass.

How proudly the boy watches his first kite mount upward! Well he may be proud; it is his first harnessing of nature. "Just feel her pull! Don't she fly like a bird? Now see her dive when

I let out this string." At times the boy imagines the kite is nearly pulling him off the ground, and this effect is somewhat heightened when he is relating the experience to a friend; but he is seldom in any danger; any kite he can construct will not be likely to outdo the force of gravity.

The full-sized aeroplane is too unwieldy for boy construction, but small models are interesting and feasible projects. No propellers are used except the windmill, which has little, if any, propelling power. Many ideas of modern aeroplanes can be gathered from current literature. A model five or six feet across will give satisfactory results.

For the sake of clearness a word of explanation of kite terms will be in order. They are illustrated in Figure A as follows: b. Length of cell. d. Breadth of cell. e. Depth of cell. c. Distance between cells. a. Length of kite.

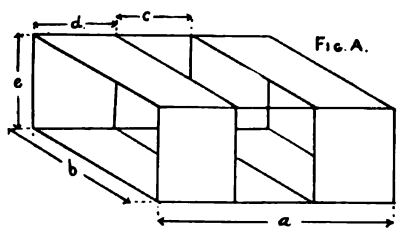


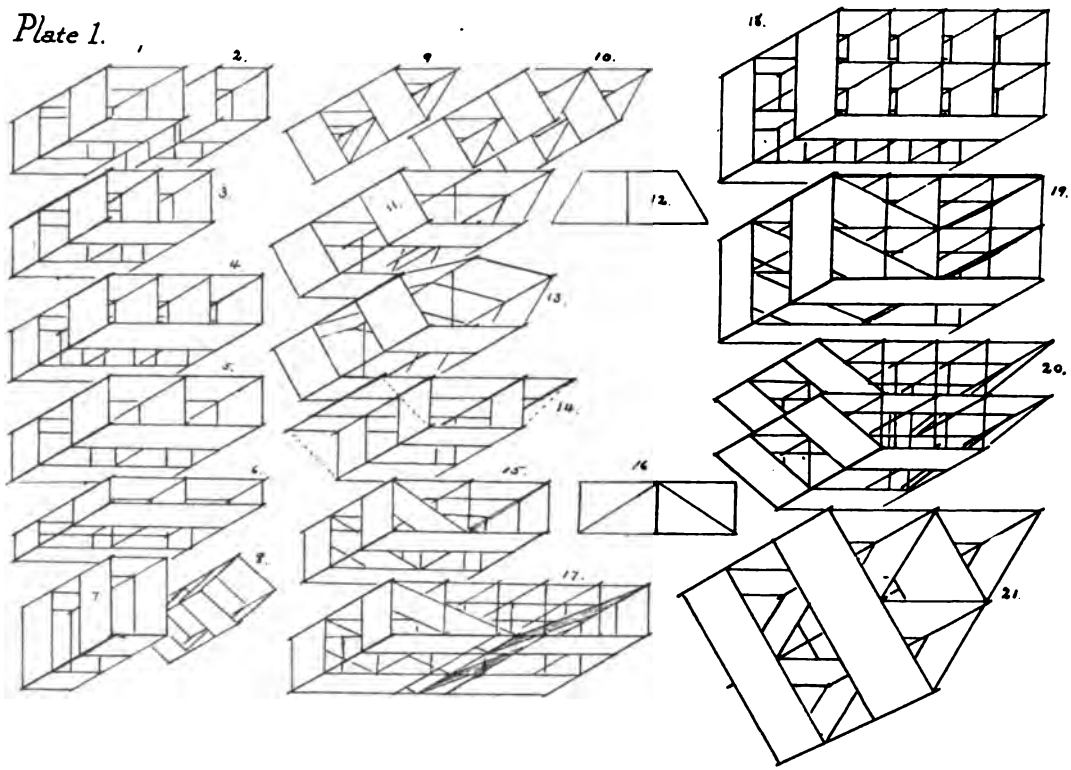
FIG. A.

It will be seen that "length of cell" is synonymous with "width of kite," and that "breadth of cell" means "thickness of kite."

Experiments show that great efficiency is attained by giving a greater distance between the forward and back cells than the breadth of the cell. In some instances the back cell is made broader than the forward cell on account of the exposure, but usually the fore and aft cells are the same size. The space between the fore and aft cells is called the "vent." Nearly all box kites require a vent.

Plates 1, 2, and 3, show an array of box kite constructions of rectangular, square, and triangular cross-sections, and their combinations.

Plate 1.



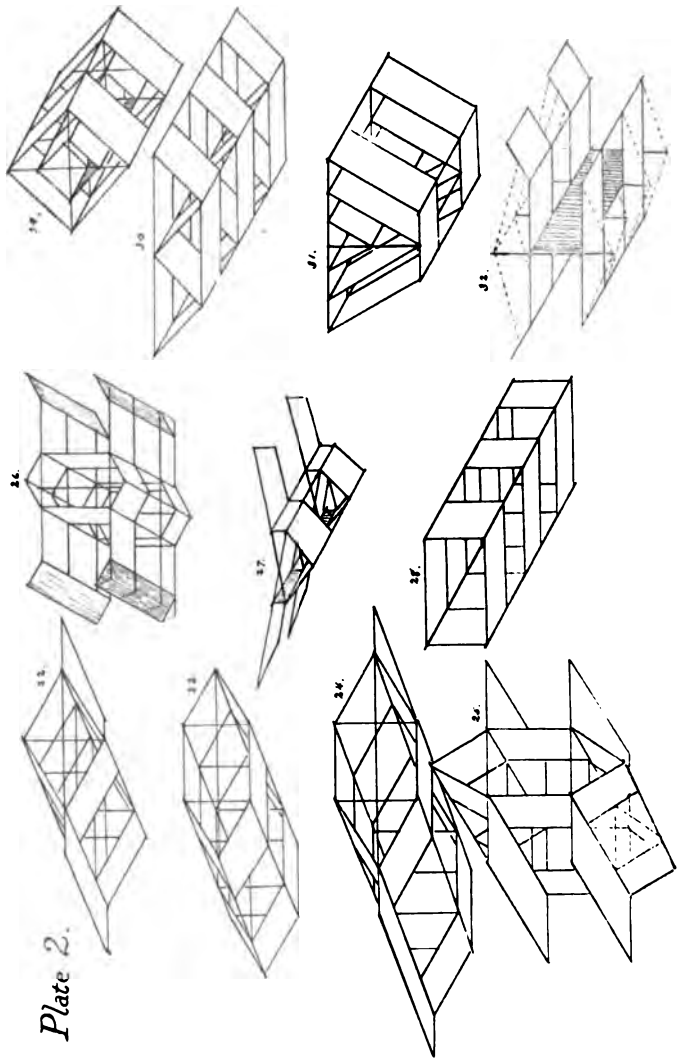
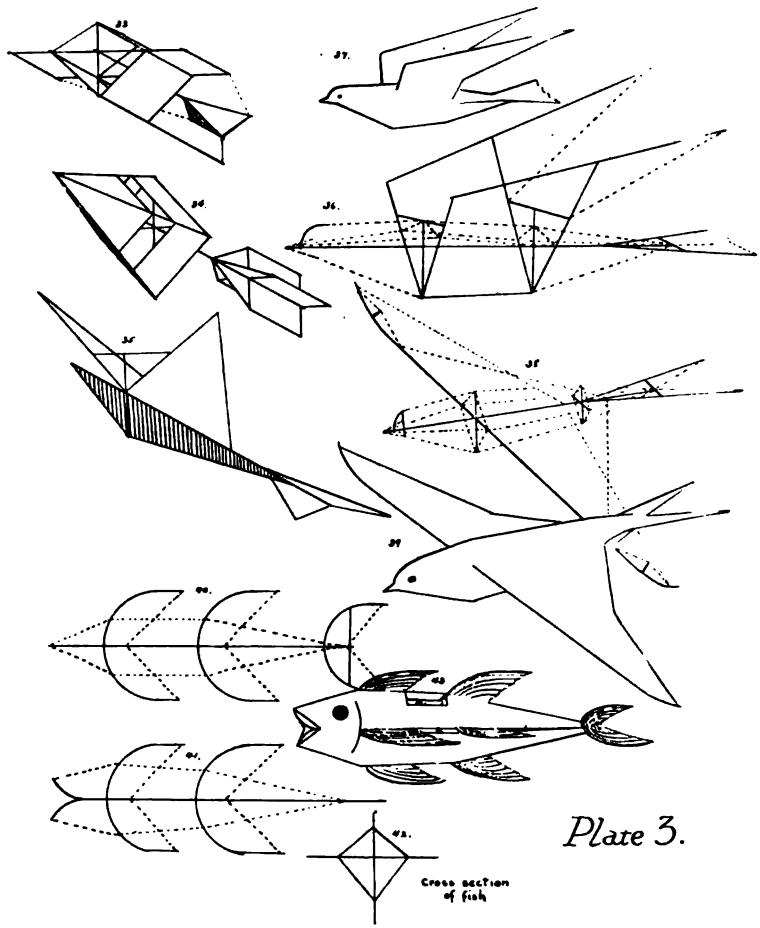


Plate 2.



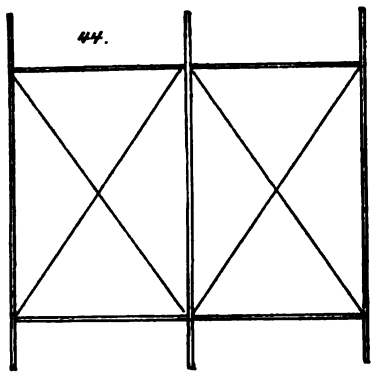
Kites of odd shapes in mechanical, bird, and fish forms.

Figure 1 represents a two-celled rectangular, cross-section kite. No. 2 a two-celled square, cross-section. No. 3 is a combining of two of No. 2. No. 4 is three of No. 2, while No. 5 is two of No. 1, and is a very good arrangement for large kites. No. 6. The efficiency of this kite is much reduced by the lack of depth of the cell. No. 7 is very unstable; not a good construction. No. 8 is No. 2 placed on the diagonal and is a steady flyer. Kites with oblique planes that slant outward and upward are much more stable than those with horizontal surfaces. Sometimes a narrow, oblique surface will suffice to give poise to broad, horizontal constructions, as in No. 26. The oblique surface becomes unstable as it approaches in angle either the horizontal, or the vertical. The down and outward surfaces are very unstable, see No. 12. No. 11 is a modification of the rectangular cross-section, but has greater lifting power and more stability. Sometimes the oblique planes are used on the inside, as shown in Nos. 15, 17, 19, 29, and 31, but should never be used as represented in the diagram, No. 16. Figures 18, 19, and 20 represent compounding in a vertical direction. No. 21 is a compounding of the triangular box kite, No. 9. The tetrahedral combinations should appear next, but they have been so well presented from time to time by Dr. Bell, in the various magazines, that they are here omitted. The reader will profit by reading the inventor's own descriptions.

Various modifications of box kites, approaching models of aeroplanes, are presented in Nos. 22 to 35. No. 25 is not as steady as No. 26. No. 27 has the advantage of oblique wings and a body like the keel of a boat. No. 28 is a further variation by the increase of the number of cells lengthwise. No. 29 is a square box kite with a similar one constructed on the inside. No. 31 is probably the most stable of all, as all the oblique surfaces assist in giving poise. No. 32 is modelled after a large aeroplane.

The kite construction is in general more serviceable and should receive almost the entire consideration, certainly of beginners.

No. 34 is an arrow kite, a pleasing kite, and one that offers considerable opportunity for decoration. Not all kites need



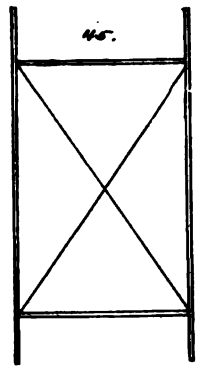
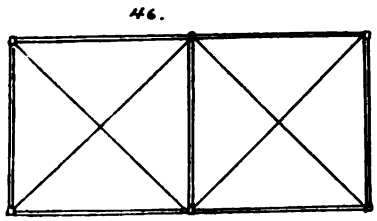
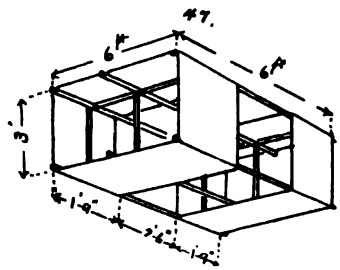


Plate 4.





decoration. Sometimes a pleasing, solid color makes a beautiful appearance. Figure 35 is an approach to hollow forms such as birds, etc. The imagination does not have to be carried far to see a good butterfly or bird form in this construction. Nos. 36 and 37 show a bird kite with raised wings, while 38 and 39 show one in a soaring position. Often, string is sufficient to

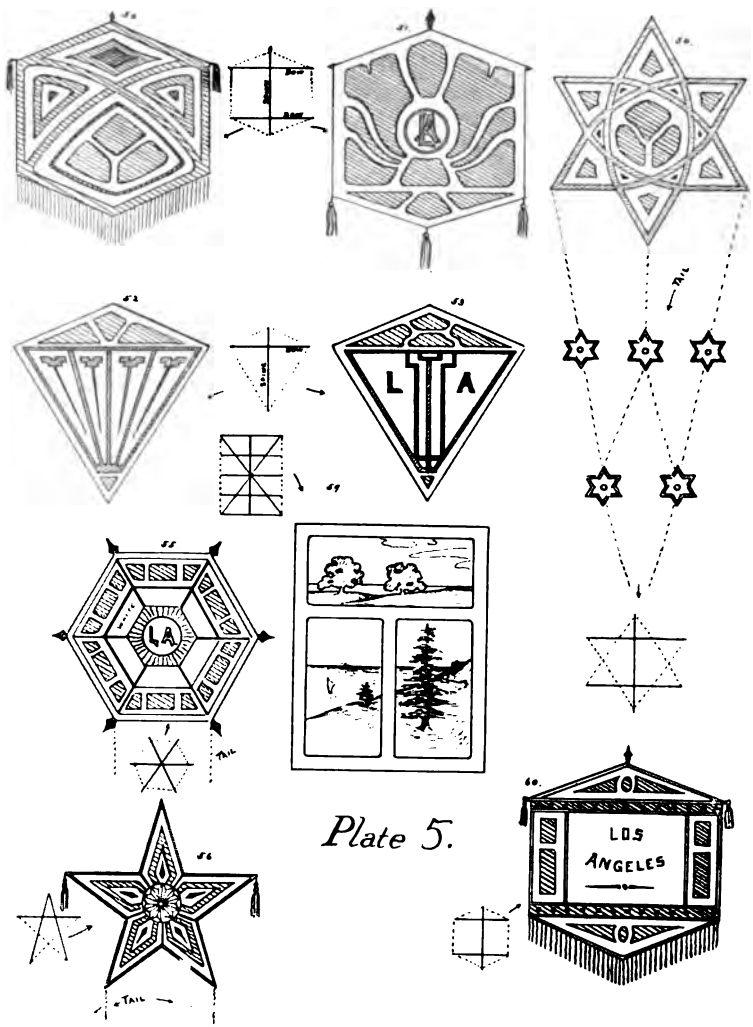


Plate 5.

Examples of kites of unusual shape with effective decoration.

carry part of the form of these hollow figures. Observe the method of bending the ends of the wings of No. 39. Nos. 40, 41, 42, and 43 are drawings of a fish kite that glides beautifully in the air. A small vent at a, and one at each side at b, b, are necessary to let the air thru. The mouth is left open. A gold fish with the scales outlined with black, etc., makes a good, showy kite.

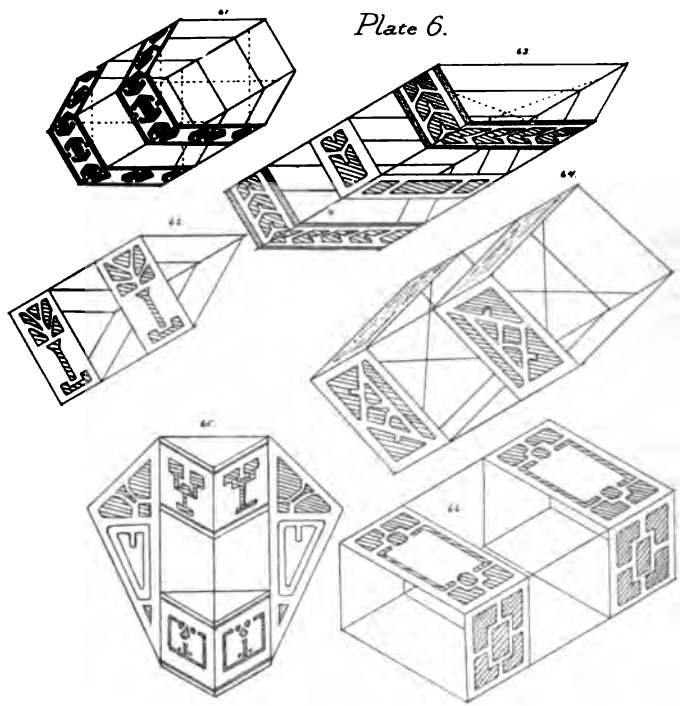
On Plate 4, Nos. 44, 45, 46, 47 are working drawings for a good sized, rectangular box kite. Bamboo is excellent for the framework. The framework should be well strung or wired in all directions. If the framework for a six foot kite is made of spruce, the two spines should be about 5-8″ x 5-8″, the four corner pieces about 3-8″ x 3-8″, and the braces 1-4″ x 1-4″.

In Plate 5, Figures 50 to 60 present various designs for the decoration of the surfaces of plain kites, while 61 to 66, Plate 6, apply to a like treatment for box kites.

Art applied to kite-making brings out a number of new problems. The sky is the background, the distance at which the object is to be seen is much greater than usual. Will the usual colors carry well at such a great distance? Will contrasts nearby have the same effect high in the air? There are many other problems. We must not attempt too much at first; let us keep in mind the wisdom of simple designs, analogous hues, and contrasting space areas. Dennison's tissue papers can be obtained in color scales likely to give harmonious combinations. "The Manual Arts" drawing books, by D. C. Heath & Co., contain many helpful suggestions for surface decoration.

Kites with windmills will require a little experimentation, as the angle to the breeze will not be the same on all kites. No. 67, Plate 7, shows a beginning by adding a wheel on each side at the rear. Others might be added at a, b, c, d, e, f. We should

consider the little side pull of a windmill: it is well to neutralize this by using the windmills in pairs. This may be done by slanting the fans in opposite directions, so that one mill will



Kites of the box type with effective decoration. The effect of distance, intensity of light, etc., must be taken into consideration when planning the color schemes for a kite.

turn to the right, while the other turns to the left. The wheels on No. 67 are turned broadside to the breeze, but a wheel like e is turned with the edge to the breeze. Even so, it would not

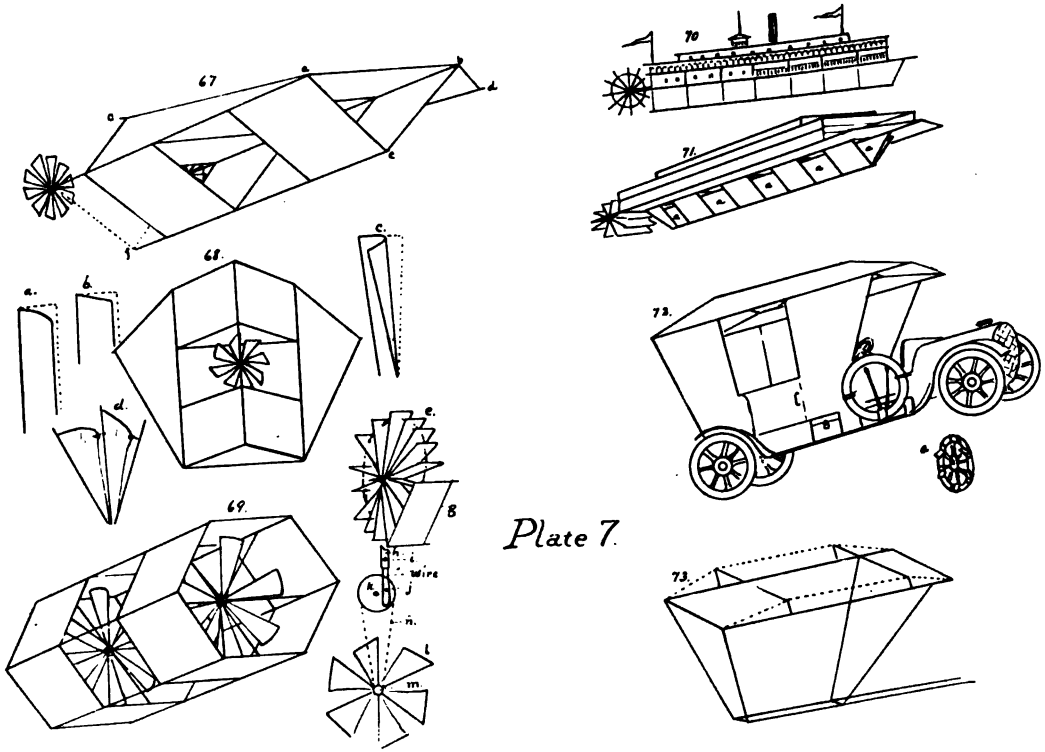


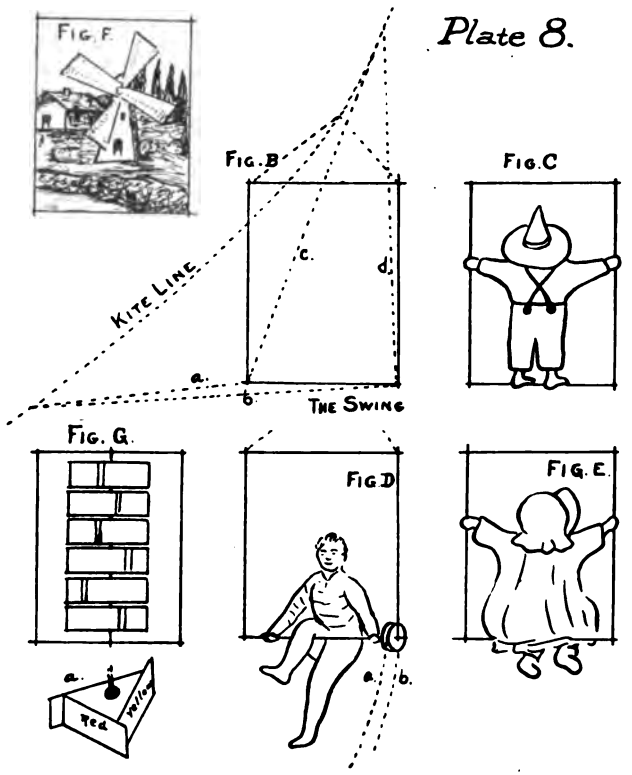
Plate 7.

Kites of complex form involving the use of windmills of various kinds.

turn at all if the shield, g, were removed, for there would be as much pressure below as above the center. Wheels for steam boats will be of the e type. Little straight, slanting fans on the inside of the automobile wheels will be sufficient to cause them to turn. See a, Fig. 72. The oblique fans on broadside windmills may be curved like a, Fig. 68, or may be a straight slant like b, or may be made of light spokes of wood with paper attached like a sail, the opposite edge being secured to the next spoke by a loose string, as shown at d. c shows a fan turned back on itself so that it will turn by edge pressure. Letters h to m show the parts of the device for wagging a head above a kite. 1 represents the windmill of No. 68; m, a small pulley on the axle of 1; n is a string belt running from m to k, a larger pulley secured higher up on the framework of the kite; j is a nail in the large pulley; i is a nail as an axle to the lever h; and the lever, h, has the head attached above. No. 69 has the windmills on the inside. No. 70 is a steamboat, and a light can be suspended properly on the inside with a smudge, which will give quite a realistic effect. If the boat stands too obliquely in the air, the difficulty may be overcome by shifting the bridle farther to the front, or if this is not satisfactory, an oblique plane slanting downward will help to raise the rear, but an opening must be left to allow a passage of air to the wheel. No. 71 shows the general block construction of the steamboat. It is made up of a flat, rectangular box kite and a triangular box kite. By using a vertical plane a, a, a, shown in 71, the hull will have a somewhat solid appearance from the side, and at the same time give chance for vents to the kite. The sides above the lower deck could be solid, but the top must have vents. A kite of this kind is only for the more ambitious, but it can be made a great success.

The automobile is a triangular box kite and with the back oblique surface at the top, should stand up quite respectably.

The body might be red, the top black or tan, the tire case black, the levers and lamps gilt, etc., etc. The engine space should be



Suggestions for accessory devices to be attached to kites.

left open at both ends with string across the opening to represent screen. Such an engine space would have kite lifting power too; it is not just dead weight. Remember the sides of the auto

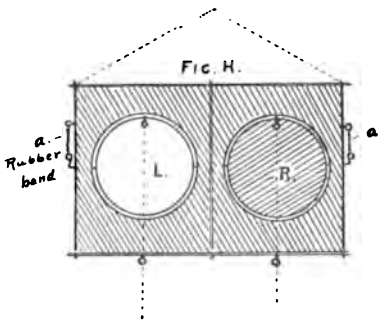
must be drawn in somewhat out of proportion at the bottom, but most of these set pieces must be observed from the side to be effective. Such a kite is not an impossible undertaking. The first one is not liable to go the first time, but when it does, with wheels turning and the curtain floating out behind, it will give a thrill of pleasure.

There are a number of supplementary devices, not kites in themselves, yet very good for exhibitions. The swing, Plate 8, is a wooden frame in which any figure may be perched or caused to perform. The figure may be cut of cardboard and supported by thin strips of wood, or it may be made up as a hollow form like the bird kite. For trapeze performances, extra strings running to the ground, are necessary. See Fig. D, a and b. A double string with two or three winds on a revolving bar would be sufficient to cause the figure to take two or three flips. It could be made to turn in the opposite direction by pulling the other string. A rubber band or spring might do away with one of the strings. Any suspended device should be attached with two strings above and two below the object to prevent twisting. See Fig. B, a, b, c, d. Where set pieces like scenery are used, Fig. F, the parts representing the sky can be cut away. Many decorative pieces could be so displayed.

Figure G represents a series of whirling fans of which a is a unit. The first should have the fans turned in one direction, the second in the opposite, the third the same as the first, and so on. These various sections should have as great variety as possible, each should have three colors. Windmills could also be placed one behind the other in a vertical position, with varying colors and varying speed; the effect would be similar to the spinning color tops.

The signalling device, Fig. H, consists of a framework with a vertical piece of wood running down the center. The whole

space is covered with a light weight cardboard, or heavy paper. Two circular openings are cut in this cardboard in which revolve two circular discs a trifle smaller than the openings. The whole device should be large enough to allow the discs to be at least twelve inches. A thin wooden strip should be fastened across the discs, for stiffening. To operate, two strings are necessary. If red and white discs are used, the same code could be used for a red and white light at night, also for wigwagging, where the red would stand for right flag and white or light for left. In the code given, the white is called light. If a letter is made up of two white and two red it will appear as L. L. R. R., and in wigwagging would be interpreted as left, left, right, right. The device will be more effective if the back of the discs are colored but the front left a neutral tone like the rest of the covering. Pulling the string causes the disc to turn over, thus exposing the color. Code:—



A	LL	J	LLRR	S	LRL	2	LLLL
B	LRRL	K	LRLR	T	L	3	RRRL
C	RLR	L	LLR	U	RRL	4	LLLR
D	LLL	M	RLLR	V	RLLL	5	RRLL
E	RL	N	RR	W	RRLR	6	LLRR
F	LLLR	O	LR	X	LRLL	7	RLLL
G	RRLL	P	RLRL	Y	RRR	8	LRRR
H	RLL	Q	RLRR	Z	LLLL	9	RLLR
I	R	R	LRR	1	RRRR	0	LR

Another form of amusement in connection with kite-flying is found in trolleying. Trains, electric cars, automobiles, etc., can be operated up and down the kite-line by means of a pulley attached far up on the string, and an extra cord to pull by. They should return by gravity. Such objects will run suspended under the kite line. The pulleys used on the upper side of the objects should have deep grooves, and guides. A light tin engine may have a smudge inside to produce smoke.

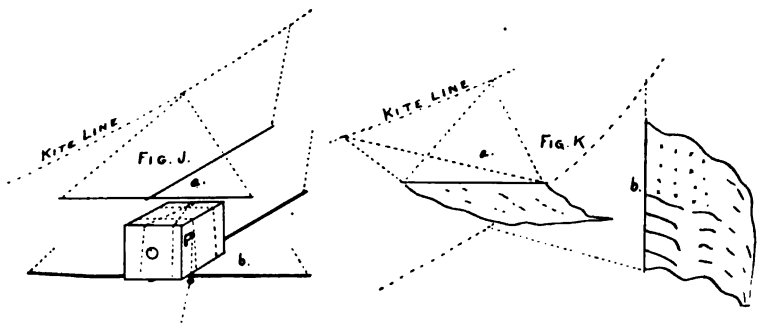
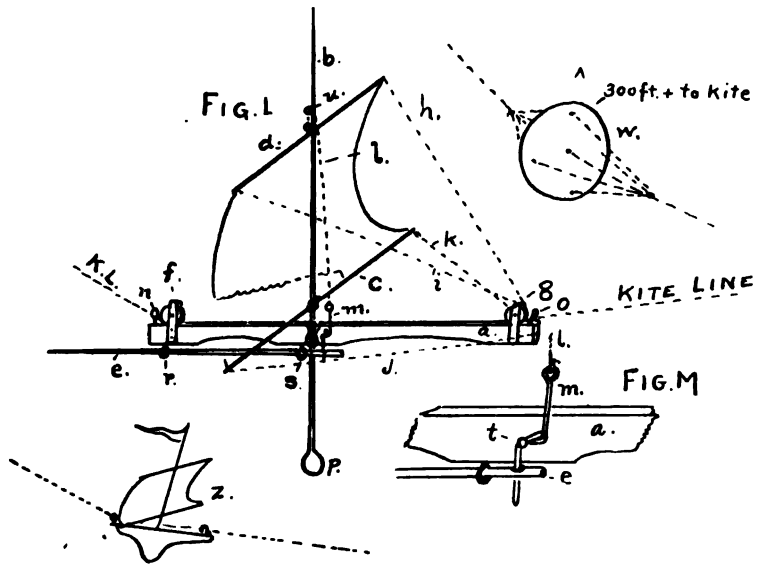


Figure J is a camera rest. The tripping cord that snaps the shutter should be so attached as to cause the least amount of swaying of the camera. a represents the frame; b has the camera in place.

A banner or flag often gets tangled with the kite line. Figure K shows a good suspension. A pleasing feature is the unfolding of a banner or flag after it is well up in the air. The flag is wrapped with paper and string, an extra string to the ground unties a knot, thereby releasing the contents. In like manner, a whole kite can be covered until well up, and sometimes to great advantage. In like manner again, parachutes can have definite release. Sometimes the large parachute is desirable,

but a shower of small ones of variegated colors, is a very beautiful display. Try twenty to fifty sometime and see if you don't think so too.

The yacht messenger, as its name indicates, is in the shape of a small yacht. It was first presented by Mr. Nugent. It



travels up the kite line by pressure of the wind on the sail. When the sail is tripped and drops down on the hull, the yacht returns by gravity. The model used by our boys for the last two tournaments is somewhat of a modification of the original. See Fig. L. There is a light beam, a, that supports the mast, b, etc., d and c are yard arms. The sail is cut away to show other parts. e is a small stick that is attached, and pushes off the tripping device; it lies loosely in the screw eyes, r, and s; f and g are pulleys

Plate 9. From a Los Angeles tournament. 1. Examples of the variety of kites produced in a single school. 2. A dragon kite which flew well, the body swaying in the breeze 3. The smallest box kite made, about the length of a pencil. It flew well on a thread. 4. The windmill applied to the wagging of the head of a kite, and a finished yacht kite of successful design. 5 A tetrahedral kite. 6. Example of a decorated kite of effective design. 7. A successful triangular box kite of unusual dimensions. 8. A kite made by Florence Lyle and Nellie Motz which received second prize in a Los Angeles tournament.

Plate 10. **9. The realization of a great ambition, a good wireless receiver from a high flying kite. 10. A successful kite reel from parts of an old bicycle. 11. A bird's-eye view from a kite. 12. Another bird's-eye view from a kite, an unusual example of convergence. The white speck at the left of the Y. M. C. A. shaft is the boy operating the camera on his kite.**

and small tin brackets; the kite line passes under these pulleys, but they are not sufficient by themselves to prevent the line

from jumping off, so screw eyes, n and o, are put before and after to assist in keeping the line in place. h, i, j and k are guy strings to keep the sail square to the breeze. l is a string that holds up the sail on the up trip, while u is a loop for l to pass thru. m is a hook that is pushed off the nail by e. Figure M shows a part of these on a larger scale; t is the nail. w is the obstruction on the kite line, and z is the complete yacht. A weight, p, is necessary to keep the yacht upright. The hull is cut out of cardboard.

The drawings presented are not intended as working drawings; they are little more than pictures of possibilities. It is better so, else there would be little for the boys to work out. The possible variety is almost unlimited. I have been much interested in the experiments of Dr. Bell, and found an article in the National Geographical Magazine, No. 14: p. 219, interesting and instructive.

The photographs, Plates 9 and 10, may be of service in explaining some features not brought out sufficiently in the drawings and text. It is hoped that this constructive work may receive much encouragement from educators. I believe it has a specific mission. The work has developed rapidly here, and I may say unexpectedly but very satisfactorily. Lend a hand.

CHARLES MILAN MILLER
Assistant Supervisor of Manual Training
Los Angeles, Cal.

ANNOTATED OUTLINES

MARCH

IN Emerson's essay on The Comic he says: "Separate any object, as a particular bodily man, a horse, a turnip, a flour-barrel, an umbrella, from the connection of things, and contemplate it alone, standing there in absolute nature, it becomes at once comic; no useful, no respectable qualities can rescue it from the ludicrous." When drawings of such detached objects are made by children some of them are amusing, one must admit; but oftener they are pathetic. One sees behind them the grimy little hand holding hard the wet pencil, the tense little face with its dubious eyes; and behind these one feels the presence of an anxious young spirit groping thru the tangle of objects and the fog of words towards an idea. Ought we not to be sure to give the idea first as a guiding light? Then the drawing will be an expression of it. Then the little artist can learn to exclaim with Walt Whitman, "You objects that call from diffusion my meanings and give them shape!"

PRIMARY

In the primary grades we are ready to help the children to image more clearly and to express more intelligibly that which comes to them from nature and from language. In the first grade we make use of the season, the weather, and whatever suggests the return of spring. In the second and third grades we make use of Mother Goose and the familiar fables, fairy tales, myths, and legends. In each case a clear, sharp, truthful picture is the aim, a picture not of a detached object, but of objects in significant relation.

FIRST YEAR. (U) Record the signs of the coming of spring.

The signs of the coming of spring are to be seen in the March winds, in the budding pussy willows and alder catkins, in the peeping forth of the first green things, in kite flying, marble playing, and rope skipping, on the part of the children, and in the return of the birds from the south.

Plate I. Examples of first year paper cutting. Signs of the coming of spring.

Use any medium which the subject, and the natural limitations of the first grade, make advisable. The March Wind as a subject suggests the use of the pencil if trees are to show the effects of it, but of the scissors, perhaps, if clothes upon a line are to be utilized. The peeping forth of the first green things, and the return of the bluebirds seem to demand color. Lead the children to make thoughtful selection of the subject matter of the illustration, and then to express it as perfectly as possible.

The sort of work which first grade children can produce is illustrated in Plate I. These paper cuttings were clipped from a large sheet illustrating life in Holland, by Owen Ramsburg, six years old, Grade I, Somersworth, N. H.

SECOND YEAR. Illustrate Mother Goose rhymes, or other child literature, involving the use of familiar objects.

Here, as in the previous grade, the drawing should be supplementary to the language work, or rather, the two should not be separated. The language

Plate II. Examples of second year illustrative work. Fables and Mother Goose rhymes.

assignment may follow the selection of a subject which lends itself happily to illustration. Let the children describe the pictures called up by the words; lead them to select the picture to be drawn or cut; help them to image clearly every important detail.

Plate II shows typical second grade work in illustration of Mother Goose rhymes and the fables. The first is a pencil drawing by Dorothy Langworthy, aged seven, Grade II, Westerly, R. I. The second is a paper cutting by George Loum, a second grade pupil in the Monroe School, Stockton, Cal. The third is by Joseph Gladis, Grade II, Broad Street School, Bristol, Conn.

THIRD YEAR. Illustrate fairy tales, myths, legends, and historical stories.

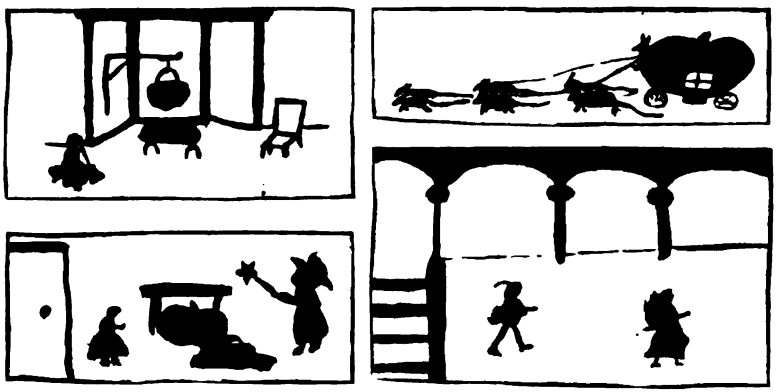


Plate III. Examples of work appropriate to the third year. The illustration of the story of Cinderella.

Drawing and language, geography, and history should work together for good in this grade. Clear imaging of objects, arrangement of elements to tell the story, thoughtful drawing and spacing, these are the aims. The illustrations in Plate III are by a second grade pupil, C. L., Johnstown, Pa. To save space I have reduced the size of some of the illustrations, thereby losing certain details of the walls, outside and inside Cinderella's home. If third grade teachers are able to secure from their pupils as intelligible illustration as this, they ought to be satisfied.

GRAMMAR

In the grammar grades the element of color should be considered in making and in rendering significant groups of objects. The colors and the terms which describe them should therefore be reviewed, and examples of harmonious coloring should be studied. Whatever the nomenclature in use, harmonious combinations of color may be described as follows:

(4) One color with neutrals (white, black, grays).

(5) Two contrasting colors (complementary) with neutrals; one of the two colors more prominent than the other, because of its area or its intensity.

(6) Several tones of one color, with or without neutrals; tones from one color scale.

(7) A group of related hues, tones selected from neighboring scales of color; one hue dominant.

(8) Any combination of colors and neutrals which satisfies a trained color sense.

These have been numbered to correspond with the grade in which each may be studied with some hope of success. Natural objects, bits of dress goods, examples of modern commercial printing, objects in museums,—pottery, textiles, architectural decorations, pictures, etc.,—illustrations in magazines and books, in drawing books and manuals, and, best of all, drawings made by the supervisor in the presence of the pupils, will furnish material for training the taste in color.

FOURTH YEAR. (U) Make silhouettes of suggestive groups of objects, in black on a ground of appropriate color.

Plan to use the drawing as the frontispiece of the booklet. The silhouettes on page 623, from the Applied Arts Drawing Books, Third Year, show the happy combination of animate and inanimate objects such as the work of this grade should exhibit. Pets, poultry, etc., might supply the animate element in many a pleasing group, if the figures of children seem too difficult.

A page of silhouettes from the Applied Arts Drawing Books by Miss Seegmiller, published by Atkinson, Mentzer & Grover.

If the pupils are depicting a real experience, however, nothing is too difficult for them to attempt.

Silhouettes on a middle value ground of half or quarter intensity are pleasing; green or yellow or blue if the subject is in the open, red or orange if indoors.

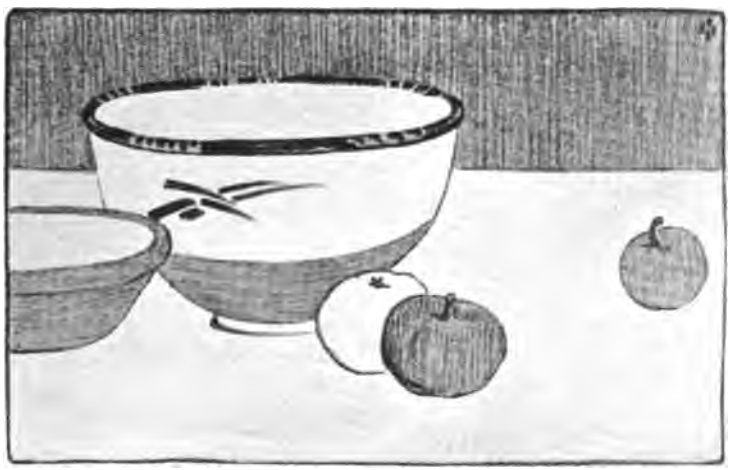
FIFTH YEAR. Make pictures of suggestive groups of spherical, hemispherical, and other objects involving foreshortening.

Children's playthings, fruit and vegetables, dishes and the food served in them, offer pleasing subjects. The illustrations on page 625, taken from the Applied Arts Drawing Books, are fairly representative of such groups as might be attempted. Always begin with the idea,—suggested by an experience, an incident, a nursery rhyme; select appropriate objects; group them to express the thought as vividly as possible; then draw with the utmost precision; and color harmoniously. In this grade let the color scheme consist of carefully balanced white, black, and gray tones, with a delicate diffused tint of one color and a sharp touch or two of the complementary color. In the upper group, Plate V, for example, a tint of soft green might be passed over everything except the large bowl and the nearest apple. Then the apple and the ornament upon the bowl might be colored with the complementary red.

Use the drawing as frontispiece for the booklet.

SIXTH YEAR. Make pictures of significant groups of hemispherical, cylindrical, and other objects involving foreshortening.

The best illustrations available to show such work as might best be attempted in this grade, are to be found in drawing books. Plate VI contains three illustrations from the Text Books of Art Education, published by the Prang Educational Company. In one of these the light and shade is carefully studied, and it is therefore carried beyond the range of grammar grade pupils; but the grouping of the objects is right for this grade. Plate VII is made up of four studies found in the Manual Arts Books published by D. C. Heath & Co. These are admirable groups, simply rendered in well-related values. The charging of these values with tones of one color would make them examples of monochromatic harmony. Such harmonies are most pleasing, as a rule, when the color of the highest intensity is confined to the smallest appropriate area. See the frontispiece, a drawing by Mr. James Hall. The completed drawing should form the frontispiece of the booklet on Foreshortening.



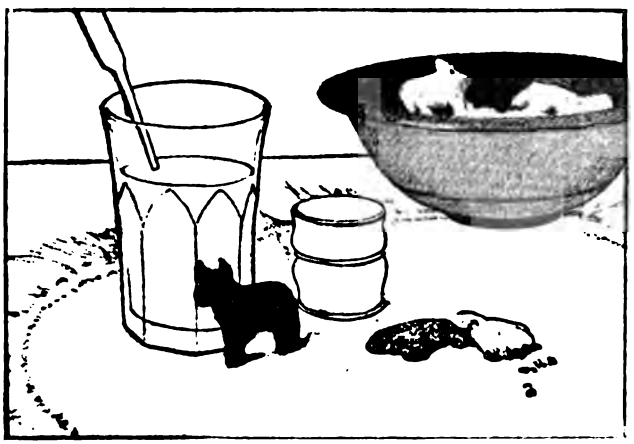


Plate V. Groups from the Applied Arts Drawing Books, not too difficult for fifth grade children to attempt.

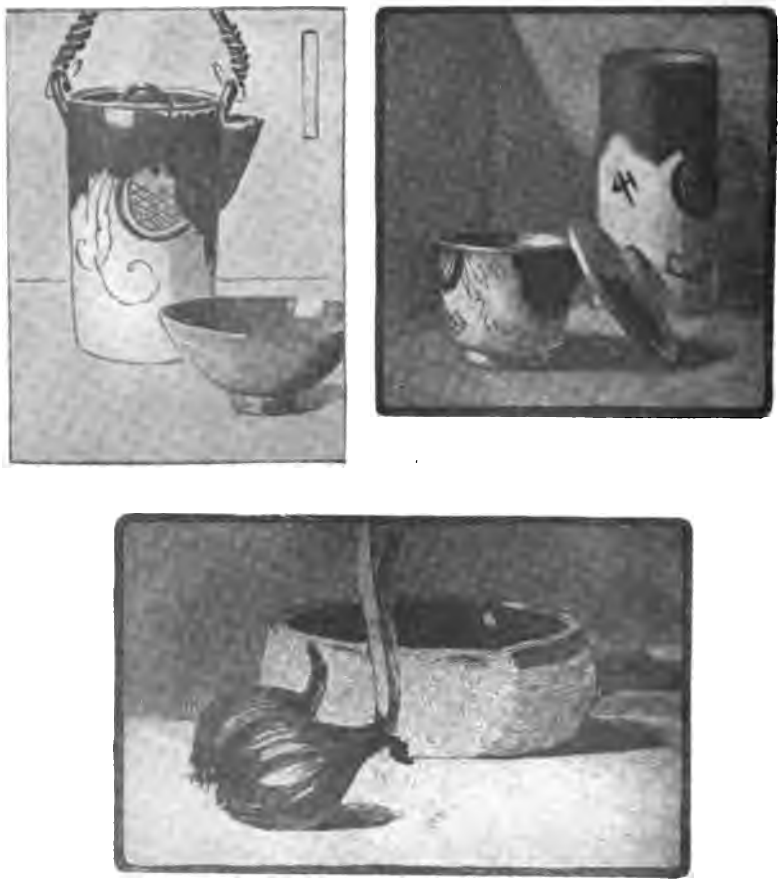


Plate VI. Groups from the Text Books of Art Education, published by the Prang Educational Company, made up of objects which sixth grade children should be able to draw.

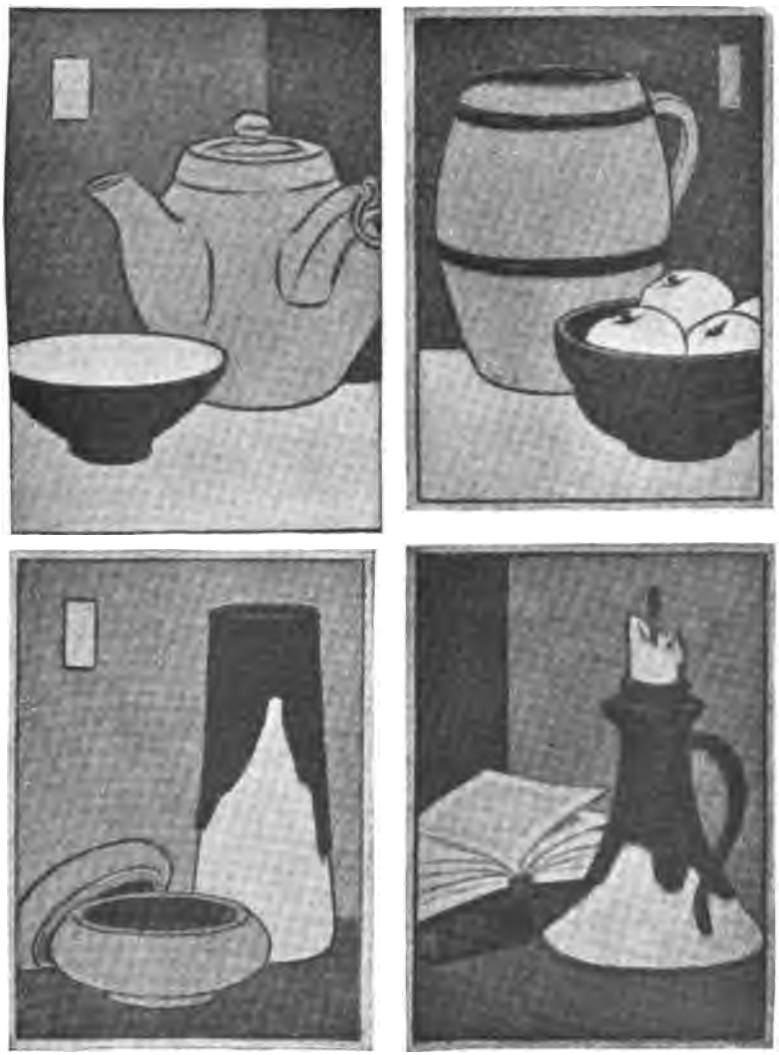


Plate VII. Four groups from the Manual Arts Books, published by D. C. Heath & Co. Studies in values appropriate to seventh and eighth grade work.

SEVENTH YEAR. (U) Make pictures of significant groups of objects involving foreshortening and convergence.

The fourth illustration, Plate VII, shows a group appropriate to the grade. Another appropriate group is given on this page. This group was arranged to illustrate one of the riddles given last month:

"Formed long ago, yet made to-day,
Employed while others sleep,
What few would like to give away,
Nor any wish to keep."

A group composed of toys illustrating an old riddle.

A toy bed, a toy doll, were used as objects, and the ball thrown in for the fun of it, and to emphasize the toy idea, and to make a more amusing and more suggestive group. The color scheme should be a group of related hues. In this particular case the ball might be yellow, to suggest the moon, the floor, orange-yellow, the bed, orange. These would be brought into still closer harmony thru an adjustment of their values and intensities, and thru their distribution. The color used for the floor might be used also in the face of the doll. The yellow of the moon might be echoed in the spots of the bed-spread. The color of the bed might be repeated in the string of the ball, etc. The final drawing should form the frontispiece of the booklet on Convergence.

EIGHTH YEAR. Make pictures of significant groups of objects involving foreshortening or convergence under conditions other than the conventional.

For example, in Plate VIII, colored insert opposite page 584, is Old King Cole's pipe and bowl, together with his pouch of tobacco, which, inasmuch as

he did not call for it, he must have had in his pocket. (Probably he could not trust his courtiers with that!) The pipe with the royal crown worked in as a decoration upon the bowl of it, lying on its side, presents foreshortened circles "under conditions other than conventional," conditions which demand a knowledge of the relation of axes in cones not vertical in position. The coloring, in the original, exhibited "a combination of colors and neutrals which satisfied the trained color sense" of several persons to whom I showed it before sending it to the engravers. As it appears, the color effect is the result of printing in one color and black with two combination plates.

The finished study should be the handsome frontispiece to the booklet on Aids and Tests in Pictorial Drawing. H. T. B.

HIGH SCHOOL

FREEHAND DIVISION

In the outline for February we considered the use of plain bands and abstract spots as decorative material, with particular emphasis on the straight line. It would be well to lead from this to the use of the curved line in simple surface adornment.

I have found that pupils of high school age most easily appreciate the kind of curves that are usable if they are classified as C curves and S curves.

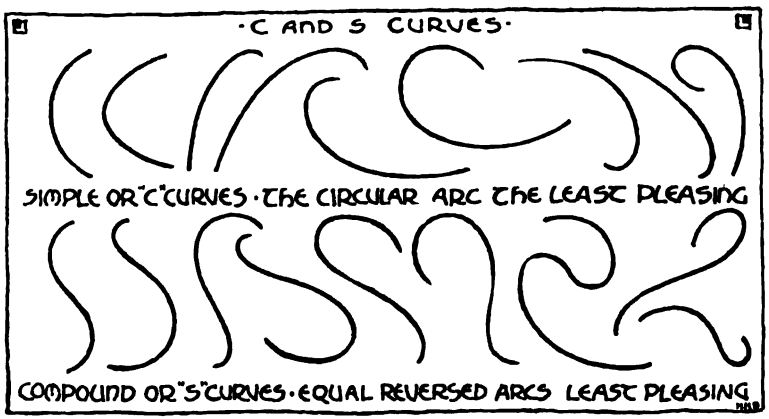

·C AND S CURVES·
SIMPLE OR "C" CURVES · THE CIRCULAR ARC THE LEAST PLEASING
COMPOUND OR "S" CURVES · EQUAL REVERSED ARCS LEAST PLEASING

Figure 1.

C curves are those that curve in one direction only, while the S curve has the compound direction.

By eliminating all curves but these the work at once becomes, at least, hopeful. In either of these curves the fact must be appreciated that equal

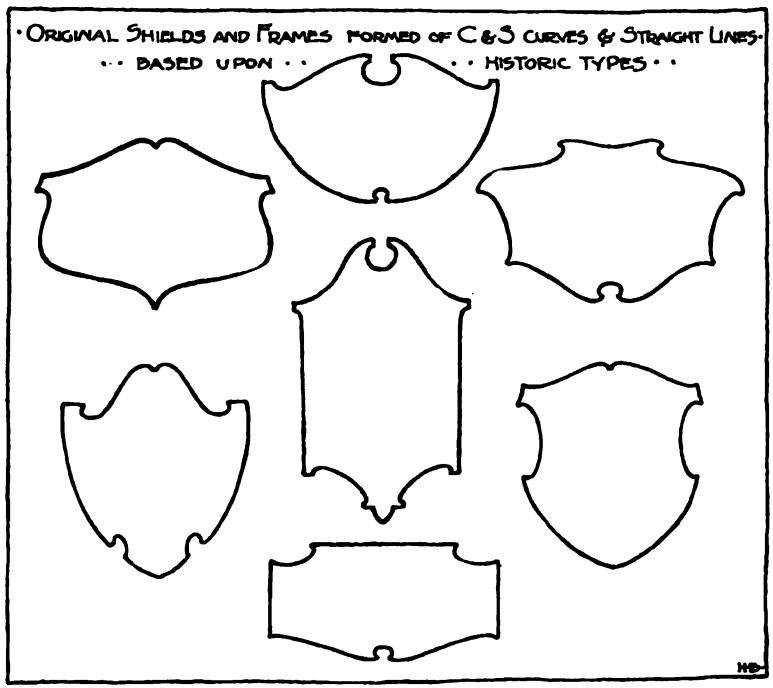


Figure 2.

and uniform curvature is usually less pleasing than the modulation or accenting of one part or another, as illustrated in Figure 1.

The ability to draw a curve of either sort which shall flow smoothly without a broken-back effect is not common. The sight of cramped fingers and rigid muscles painfully guiding over a trembling course a lead pencil which the youth is either too lazy or stupid to sharpen is not inspiring and perhaps

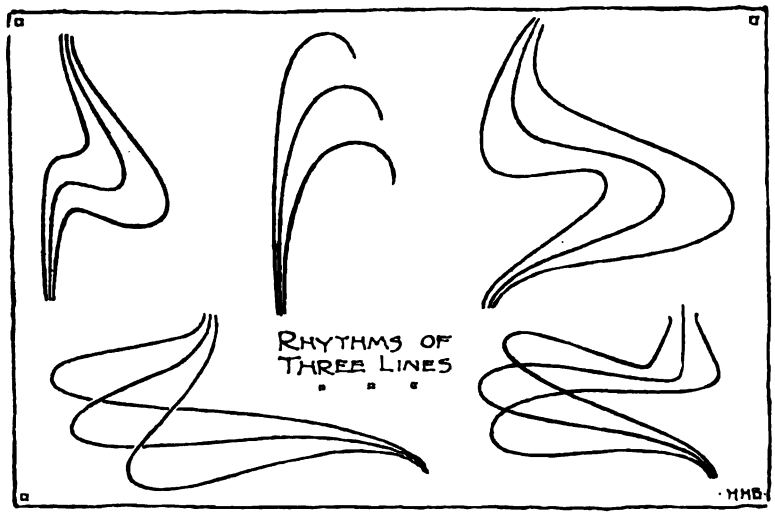


Figure 3.

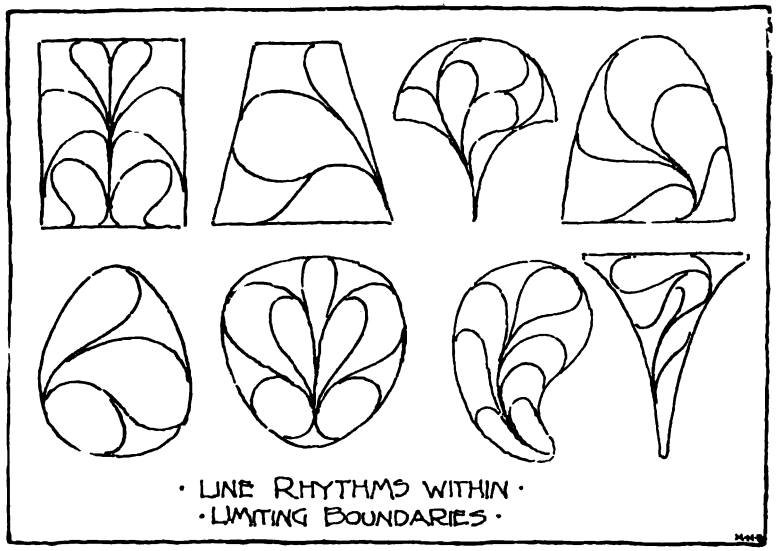


Figure 4.

should not be referred to outside the immediate school family. These are elemental factors in the little problem before us, however. Sharpen the pencils and learn to draw pure curves.

The American idea has pushed aside the exercise which does not immediately produce a finished product as well as furnishing practice. The pupil must have a picture, design or article to show at the end of his lesson rather than an increased ability to do something a little more intelligently than he did before, whatever the immediate visible results may be.

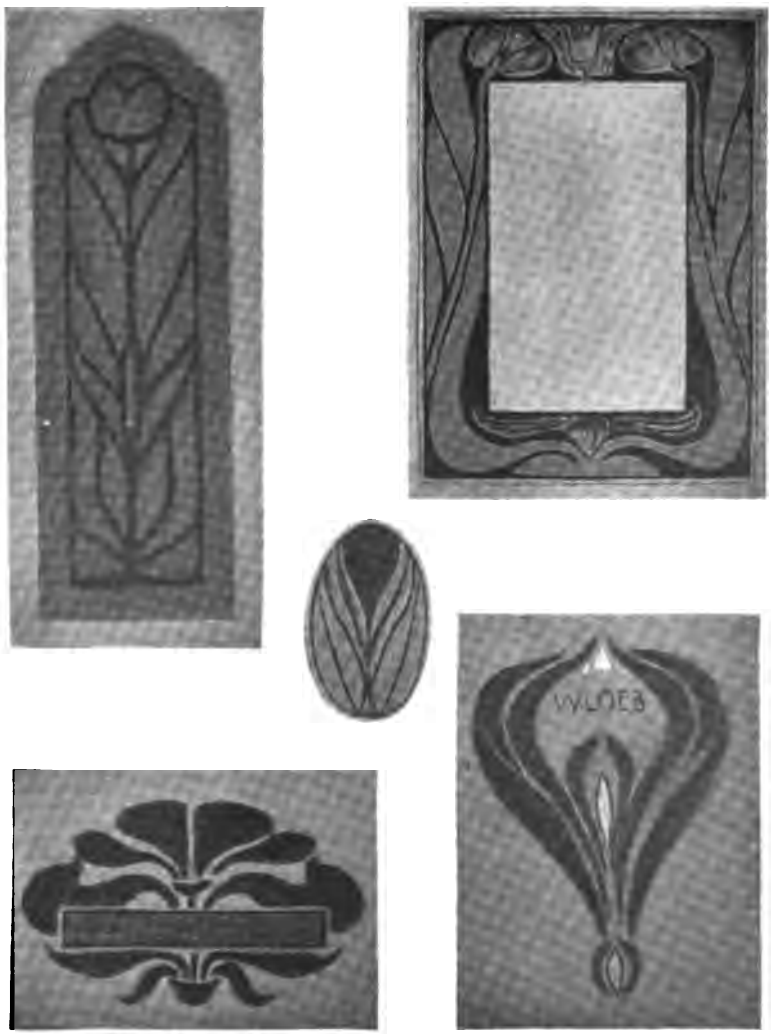
The C and S curves may also be termed simple and compound curves. Anything which exceeds the latter, for the purpose of these exercises, will be termed a complex curve and banished forthwith. The well-informed teacher is too familiar with these curves to need more than a reference to them and their possibilities, and a file of The School Arts Book will show many applications of them in specific lessons.

Figure 2 gives a series of applications of these curves to simple frame forms of the nature of shields or escutcheons, a common device in all times and frequently of great beauty. Try making some. Avoid joining a C and an S curve together without an angle or straight line to break their union, or you will produce a complex, tiresome and aimless curve.

The rhythmic flow of several related curves from one general source is constantly found in nature and art. We find such rhythm in running water, swirls of cloud and dust, or the mingling of different colored liquids. A drop of waterproof India ink on the surface of a glass of water will, at the touch of a pencil, produce beautiful rhythmic forms, seen the clearer if the glass stands on a white surface. The markings of leaves, flowers, shells and insects, the grain of woods or the streaks in marbles offer their countless examples to the seeing and thoughtful student.

It will be found on experiment that the ability to compose three or more lines flowing from one source and branching ryhthmically is no mean accomplishment. A series of exercises similar to those in Figure 3 will be helpful in appreciating and producing good line rhythm. One rhythm may unite with and continue as a set of parallels or as another rhythm.

A vital principle, frequently neglected, is the massing of any form, rhythmic or not, within a pleasing limiting shape. The eye cannot grasp a sprawling figure. Geometric figures with straight line boundaries are good as inclosing shapes, whether a rectangle, triangle, trapezoid or even a more complicated form. Other enclosures formed by straight and curved lines may be used. Figures formed only by curves comprise, of course, the circle and



Examples of original designs by high school pupils, involving curved elements.

ellipses of any proportion. Another basic curved shape, itself beautiful and capable of many variations, is the egg or ovoid. It may be long or short, narrow or wide, formed on a straight or curved axis. Its top or base may be indented or extended to a point and its contours modified by subordinate forms within reasonable limits.

An exterior inclosing shape decided upon, its interior should be broken by a line rhythm. The growth should be distinctly from one source and tangential in its joinings, with the clear purpose of obtaining with each curve an enclosed area which is itself of pleasing form. The danger of running into curves other than the C and the S is great, and in many cases the pupil seems helpless. The arrangement may be symmetrical on the axis line or have no such restriction, Fig. 4. Any shape having been filled with a line rhythm, the completion of the design may be accomplished by modifying the various areas inclosed by the lines into leaves and flowers. The October Outline showed the possibilities of fitting such floral details to any space. The rhythmic lines may be taken as leading veins of the leaves or as boundaries between leaves and flowers. Frequently the rhythmic lines are adequate in themselves without further treatment.

The inclosing boundary line of the limiting shape may be permanently retained as a part of the scheme, or erased, as seems best. Finally the treatment of the whole in color, if feasible, enhances the effect.

The practical use to which these exercises may be put is almost limitless. Any object which may be enriched by a decorative form can have such a form developed along the lines of this lesson, and adapted to paper, wood, textiles or metal.

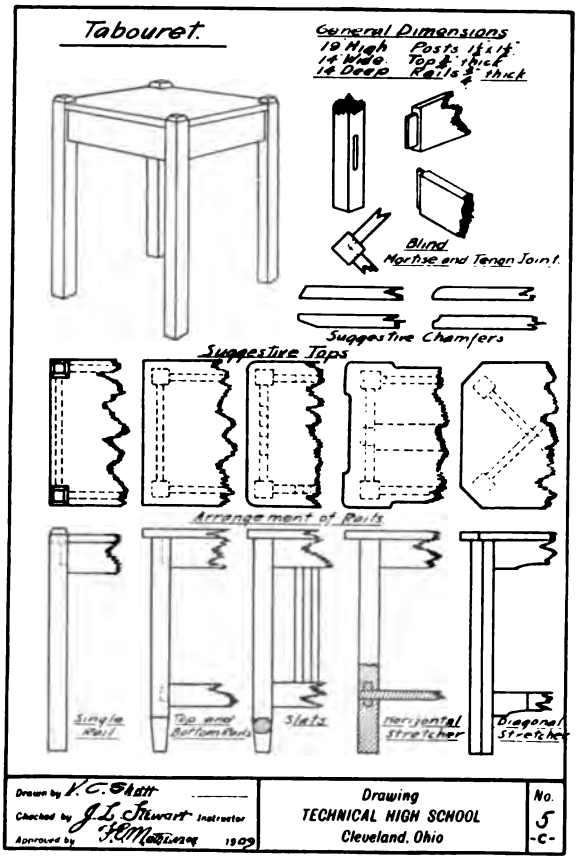
HAROLD HAVEN BROWN

Stuyvesant High School
New York City

MECHANICAL DIVISION

Copyright reserved by the Taylor-Holden Company.

The following problems in the development of the surfaces of pyramids and cones require the pupil to find the exact length of a line when the two views of the line show it to be at an angle to the plane of the drawing paper upon which it is represented.

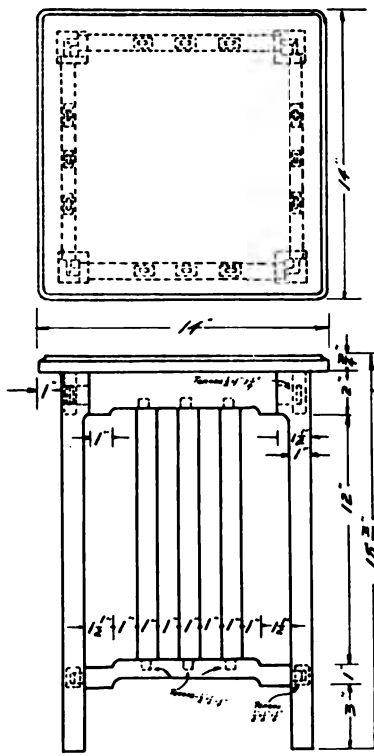

Tabouret.
General Dimensions
19 High
14 Wide
14 Deep
Posts 1½ sq.
Top ¾ thick
Rails ¾ thick
Blind
Mortise and Tenon Joint
Suggestive Chamfers
Suggestive Taps
Arrangement of Rails
Single Rail
Top and Bottom Rails
Slats
Horizontal Stretcher
Diagonal Stretcher
Drawn by V. C. Skaff
Checked by J. L. Stewart Instructor
Approved by F. M. Martinez 1909
Drawing
TECHNICAL HIGH SCHOOL
Cleveland, Ohio
No.
5
-C-

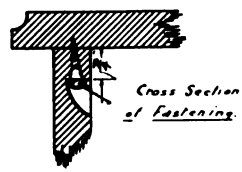
At this time there should be a brief study of the principles involved in the projections of such a line.*

Plate XV. Make front and top views, and perspective sketch, and develop the surfaces of a pyramid having a base 2 1-2″ square, and an altitude of 4 1-4″.

*See Notes on Projection, pages 21-24, Notes for Mechanical Drawing, and work out first six problems, page 25.

Plate. I.





Scale 3"=1'-0

Mill Bill of Finished Stock.

No.	Pieces	L.	W.	T.	Bd Ft.	Cost
1	Top	14"	11"	⅞"	1½	
4	Posts	15"	1½"	1½"	1	
12	Slats	12	1"	½"	1	
4	Top Rails	9"	2"	⅞"	1	
4	Bo. Rails	9	1½	⅞"	1	
	Total				5½	S. 364

Tabouret
Technical High School.
Cleveland Ohio
Apr. 30 1909 Louis Doutremont

Plate XVI. Make front and top views, and perspective sketch, and develop the surfaces of a pyramid with a hexagonal base which is 2 1-4″ between parallel sides, and having an altitude of 4 3-4″.

Plate XVII. Make front and top views, and perspective sketch, and develop the pattern for a candle shade which is to be 5″ square at the bottom, 3″ square at the top, and 3″ high. If the side lines were to be continued at the top until they meet, what would be the height of the pyramid? Make design to be applied to each side of the candle shade, which may be constructed out of cardboard or thin brass.

Plate XVIII. Design Plate. Tabouret. Make working drawings and perspective sketch. Trace and make a blueprint for use in the shop. The drawing on page 635 is a reproduction of an instruction plate used in the Cleveland Technical High School for this problem. The halftone reproductions represent solutions of the problem by as many different pupils. The drawing on page 637 is the working drawing made by a first-year pupil, showing construction, sketch, and mill bill for stock.

FRANK E. MATHEWSON

Technical High School
Cleveland, Ohio

THE WORKSHOP

WOODWORKING

A MONITOR

THE plans given this month are for a monitor with a real revolving turret, and guns that will stand firing with real powder, and will hurl shot or small pebbles a considerable distance without blowing the guns and turret to pieces, if you use common sense and a small charge of powder.

Perhaps some ambitious boy may double the dimensions here given, make his turret out of sheet iron, cast his guns, build a hollow hull, and install clock works to run a propeller and turn the turret. I think it can be done but it is probably beyond the abilities of most boys.

In our school we have constructed several monitors according to the given plans and all the work may be successfully done by the average boy of thirteen.

THE HULL

The easiest way to get the shape of the hull, Fig. 1, is to fold a piece of wrapping paper in four and cut a symmetrical pattern. Place this upon a soft pine board 7-8″ thick and draw around it. Cut away the wood with a cross-cut saw, and finish with a plane or spoke shave, or cut out entirely with the turning saw.

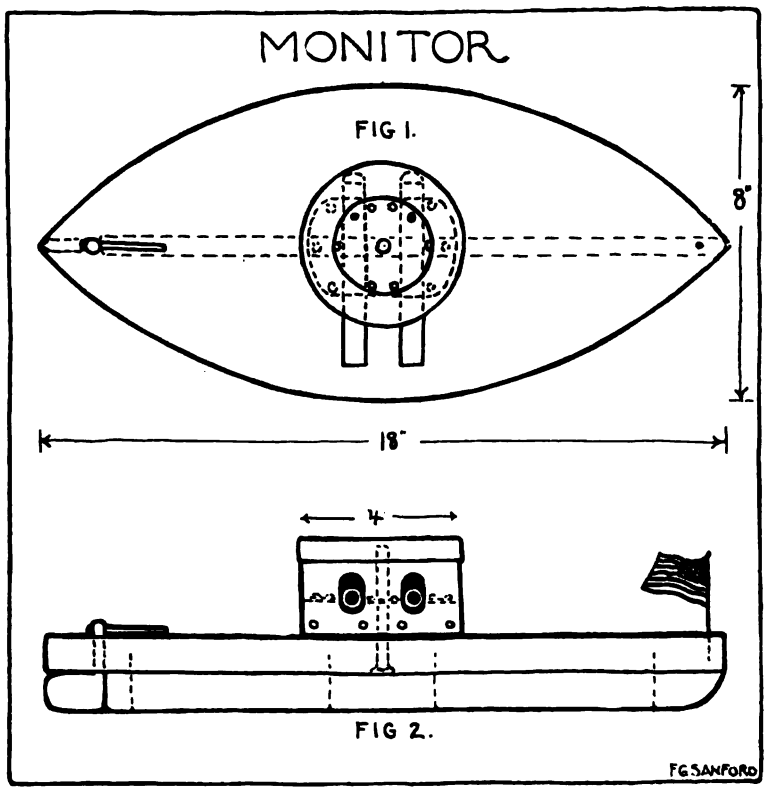
File off a round spike to 3 1-2″, see detail sheet. Bore a hole in the exact center of the hull, small enough to drive in the spike tightly. Counter sink for the head and drive the spike into place, Fig. 2. A long screw, or a belt may be used in place of a spike, but the smooth surface of the spike makes it easy to slip the turret on and off. Make the keel 16 1-2″ long, 1″ deep, 1-4″ or 3-8″ thick, and nail on with four 1 1-2″ brads. The keel being nailed over the spike keeps it from dropping out.

Make the rudder; two saw cuts and a little work with knife and sandpaper will do it, rounding the post carefully. Notice how the wood grain should run. Bore the rudder hole thru the hull somewhat larger than needed, for the wood will swell in the water. Bore the tiller hole and set rudder and tiller in position.

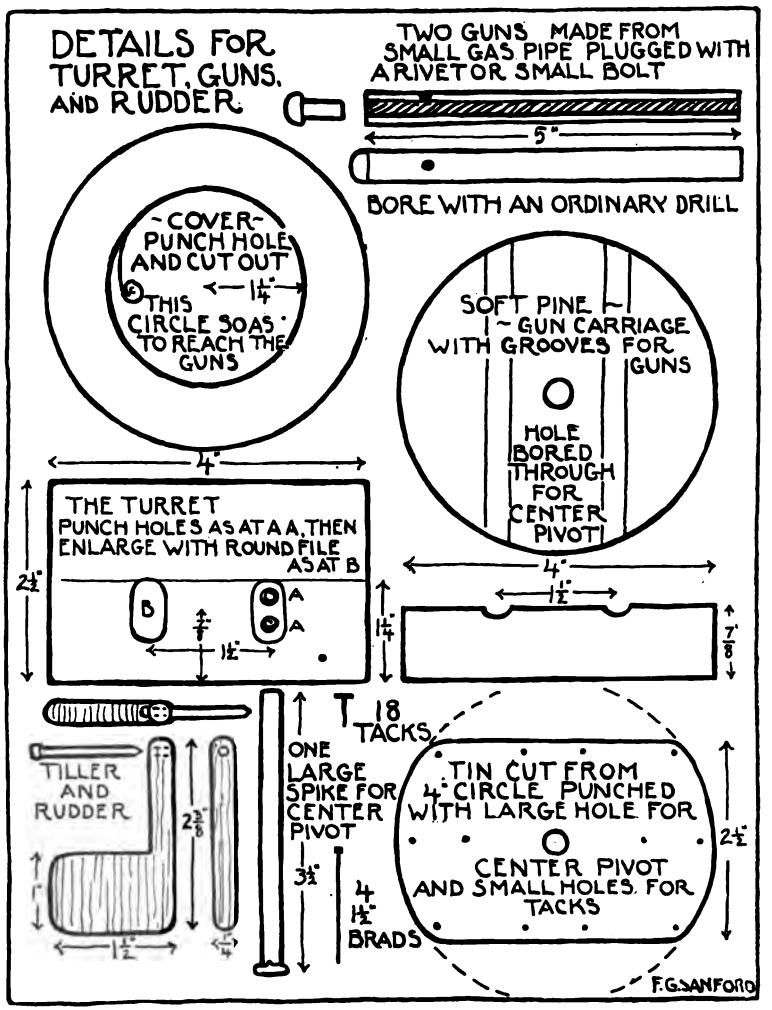
THE TURRET

Procure a tin can about the given dimensions with a good cover. If the can is too long cut off the bottom with metal snips or large shears. If you cut away the upper edge it will be difficult to fit the cover again.

In the cover, cut out a large hole as shown in the detail sheet. First punch a hole inside the curve, insert the shear points and cut gradually out to the line. It is a little difficult but can be done.



The gun carriage should be 7-8" or 1" thick and cut to a circle that will just fit the tin. If the can has been cut off, tack this piece of wood inside the lower edge and it forms the bottom of the turret. If you have a can with the bottom on, of the right size, place the gun carriage inside and nail thru


DETAILS FOR TURRET, GUNS, AND RUDDER.
TWO GUNS MADE FROM SMALL GAS PIPE PLUGGED WITH A RIVET OR SMALL BOLT
5"
BORE WITH AN ORDINARY DRILL
~COVER~ PUNCH HOLE AND CUT OUT
1¼"
THIS CIRCLE SO AS TO REACH THE GUNS
SOFT PINE ~GUN CARRIAGE WITH GROOVES FOR GUNS
HOLE BORED THROUGH FOR CENTER PIVOT
4"
THE TURRET
PUNCH HOLES AS AT A A, THEN ENLARGE WITH ROUND FILE AS AT B
2½"
B
A
A
1½"
4"
1½"
1¼"
⅞"
TILLER AND RUDDER
2⅜"
1½"
¼"
T
18 TACKS
ONE LARGE SPIKE FOR CENTER PIVOT
3½"
4 1½" BRADS
TIN CUT FROM 4" CIRCLE PUNCHED WITH LARGE HOLE FOR CENTER PIVOT AND SMALL HOLES FOR TACKS
2½"
F.G.SANFORD

the bottom. Before nailing this in place, the guns are made and the portholes cut.

Locate the portholes (see plan). With an awl or the point of dividers, punch the holes A A, then insert the point of a round file and enlarge to the form, B. The position of these ports must, of course, tally with the grooves and height of the gun carriage. The piece of tin (see detail) is intended to fit over the guns, being formed around them and tacked down, Fig. 1.

THE GUNS

Select a piece of gas-pipe, about 3-8" in diameter, with thick sides and a small opening. Each gun is five inches long. The pipe may be easily cut with the edge of a three square or half-round file, or with a back saw.

Plug one end with a large rivet, a bolt, or spike filed off and driven in hard. Bore the fuse hole with a twist drill, keeping plenty of oil on the iron.

The guns are fastened to the carriage by tacking the tin over them. Where the tin covers the fuse hole it must be perforated afterwards.

The carriage is fastened to the turret and the whole turns upon the spike pivot.

In case of any unevenness of turning, a washer, placed beneath the turret, will help.

TO FIRE THE GUNS

Take off the turret, place a fire-cracker fuse in the fuse hole first, then load thru the muzzle with a small charge of powder, then paper wads and shot or pebbles. Replace the turret, point the guns (and don't get opposite either end), fire the fuses and shove off from shore.

If the monitor is painted drab or black, and if the Stars and Stripes wave from the bow, the whole effect is very war-like and real.

FRANK G. SANFORD

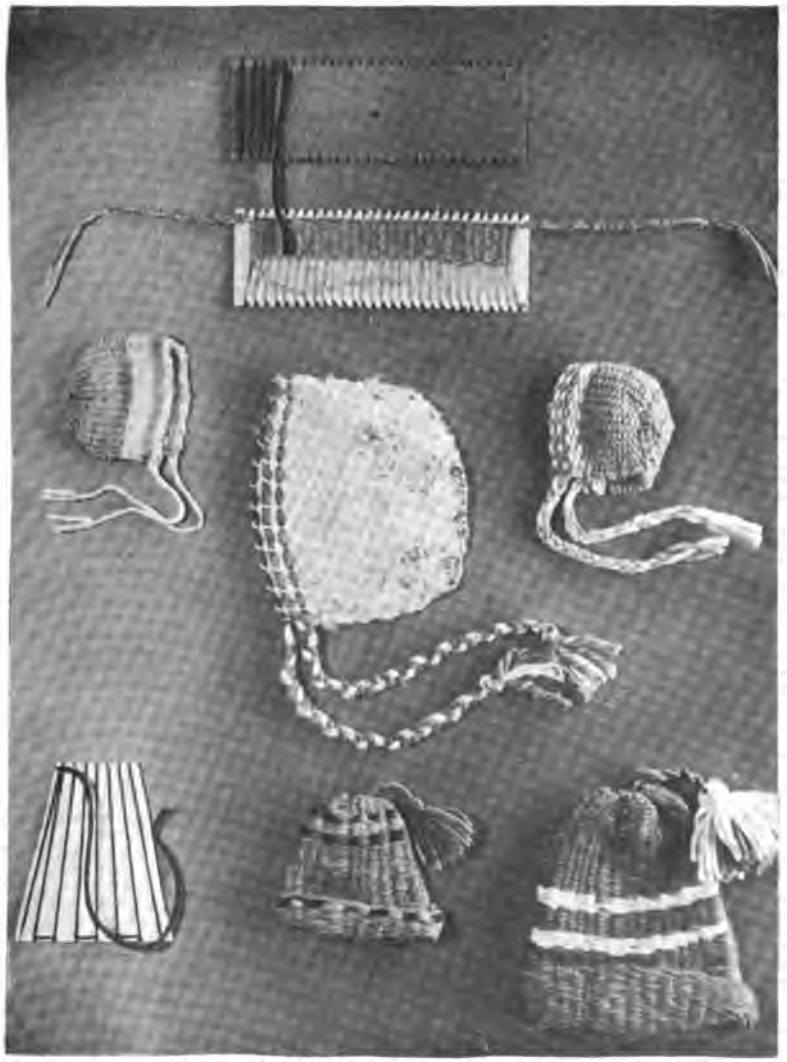
Oneonta, New York

WEAVING

A HOOD AND A TOBOGGAN

PROCESSES. Individual measurements taken; construction of a loom based on measurements; use of steel needle; beginning of design.

MATERIALS. A piece of strawboard to make the loom; cardboard; double Germantown yarn or roving, darning needle, No. 12.



1. Loom for hood, of strawboard, 8" x 2 1-4". 2. Loom with hood partly made. Warp and weft of double Germantown yarn. 3 and 4. Doll's hoods of yarn. 5. Infant's hood of roving. Colors, white with pink and blue border. 6. Loom for toboggan. 7. Doll's toboggan. 8. Child's toboggan.

ORAL LANGUAGE WORK. Talks on flax, carding, and spinning, construction of the spindle and whorl. In the Child's World, p. 426. Champlin's Cyclopedia, p. 307. Steiger's Textile Studies for the Schoolroom, p. 28. Principal Commercial Plant Fibers, Dept. of Agriculture. How the World is Clothed, Carpenter. How We are Clothed, Chamberlain.

DOLL'S HOOD

DIRECTIONS FOR MAKING

Measure the head of the doll around the face, for the length of the loom. Make the width a little more than one-fourth of the length. Cut the strawboard according to these measurements. Notch the loom on the long sides for the warping 1-4″ apart. Pupils can make their own looms. When the board has been cut the required size, tell them to mark with a pencil 1-4″ spaces along the long sides. Then with a pair of scissors let them cut out the pencil marks. This will make notches. It may be found easier for the younger children to measure 1-2″ spaces and then to place marks half-way between. Warp the yarn in the usual way, fastening the end around the last notch. The three weft threads nearest the face of the hood should be long enough to allow for strings and if of a contrasting color will furnish a border. Cut these three threads three times the length of the loom. After weaving them in place braid the loose ends remaining to form tie-strings. Do the rest of the weaving with a continuous thread forming a selvage on the short sides.

After removing from the loom, join the two lower corners at the back of the woven piece and gather into shape to fit the head. In the circular space thus formed, place threads for weaving a circular crown. Be sure to have an uneven number of rays. If the hood is placed over a ball or some other round object, the weaving of the crown will be less difficult. Weave from the center of the crown outward until the space is filled. If the circular weaving is too difficult for the children, place the back edges together and join in a straight seam.

A hood of roving large enough for a child to wear can be made in the same way. Use cord for warp.

DOLL'S TOBOGGAN

DIRECTIONS FOR MAKING

For the first exercise let all the pupils make caps of the same size. This exercise is worth repeating, letting each pupil take the measurement of the doll's head to make a loom of the necessary size. The top of this loom will

always be equal to one-half of the base. For the first exercise, use stout cardboard 4 1-2″ inches long, 4 1-2″ wide at the lower end or head-size, and 2 1-4″ wide at the top.

Make nine notches at each end, placing the middle notch first. Let the pupils mark the spaces with a pencil and then cut out the mark.

Use yarn for both warp and weft. Warp both sides of the loom the same as for the marble bag, being careful to leave open the end that fits the head. In placing the warp, leave an end at the top long enough to fasten off and make a cord for the tassel. Begin to warp at the bottom of the loom; secure the thread with a knot placed 10″ from the end of the yarn. Carry it over the top and down on the underside. Cross to the second notch and continue until the last notch has been reached. Fasten off the end. In order to make an odd number of threads for weaving, one extra notch may be placed at the lower end and the 10″ length of warp carried to the top on one side only. Begin to weave at the top with the yarn that is left.

After removing from the loom, thread the needle with yarn and draw the top together. Fasten securely and use the yarn remaining for holding the tassel. Turn up at the bottom to form a roll. Plan a loom for a large toboggan of roving.

KATHARINE FRENCH STEIGER
Director of Domestic Art
Rochester, New York

NEEDLEWORK

SWEDISH COSTUME

NECKEN

Far beneath the crystal waters dreaming
Necken sleeps in his azure hall;
Floating vapours, through the twilight gleaming,
Veil the groves in their dusky pall.
Night sweeps slowly on, in sable garb array'd,
All is hushed and still o'er sea and hill and glade,
Not a breath trembles o'er the wave
When Necken rises from his glittering cave.

See his chariot drawn by Ægir's* daughters
O'er the waves, as they dance below;
Sweetly sounds his harp across the waters,
Yet it speaks but of endless woe.

* The waves.

Not a tear has pierced the gloom and clouds above,
Bringing tender greetings from the Queen of Love,
Oh, how weary his heart must be
While thus his song sweeps sadly o'er the sea.

"Oh, where art thou, starry Queen of Heaven,
Whom I once fondly called my bride;
Far from thee in cruel exile driven,
I must languish in the ocean's tide.
But the day will dawn when all things shall be new,
When at length released, I'll ride to glory too,
Then triumphant the strain shall be
That to my golden harp I'll sing to thee."

Thus he mourns, when lo, from heaven gleaming
Freya's* smile lights the darksome night;
O'er the strand her gold tear-drops streaming
Shine like gems in unfading light.
Then she fondly greets her true love mourning there,
While the trembling waves reflect her image fair,
And the Necken in blissful pain,
Joyfully strikes his golden harp again.

Note.—Necken or the Necks, a watersprite, dwelling in lakes and rivers, plays on the harp or viole, anxiously waiting for redemption and resurrection. The above melody, intended for a polonaise or dance, was composed by a young peasant, who had learnt it from the Neck. The text was written by the poet Afvelius, who with Geijer, compiled the first collection of Swedish folk-songs. The composer Thomas has introduced the melody with admirable effect in his opera, Hamlet.

Accounts of rural life in Sweden are very interesting. The two great holidays of the year are Christmas and Midsummer Day, the 24th of June. Both of these days, in a way, represent the turning points of time, the height of the cold and warm seasons, and Midsummer Day is an especially joyful time, for it represents the feast of summer, when the sun is at its nearest point to those far northern countries. The celebration of this day is a relic of the Viking times, for after Christianity was adopted the observance of this day still continued, making it, however, more a feast of nature than a time of heathen worship.

History tells us that the day was originally called St. Hans' (St. John's) day, in remembrance of John the Baptist, but it is also believed to have become, with other festivals, a part of the great festival celebrated by ancient Scandinavians at about this time of year in honor of the god of light, or god of

*The Goddess of Love.

the sun. Great preparations were made for celebrating this festival, the homes decorated with boughs and flowers, the floors strewn with leaves, or with

evergreen, and young fir trees set up all around the houses. What a beautiful sight the homes must have been, and is it not a fine thing to perpetuate such a custom?

In Stockholm, on St. Hans' Eve, a Leaf-Market is held, where are exposed for sale, not only leafy boughs and bouquets of flowers, but thousands of tiny May-Stänger, or May-poles decorated with colored paper or tinsel, as their May-day dances all take place on Midsummer Day.

Coming at the season of the longest days of the year, Midsummer Day is made a long day and evening in the open, for the Swedish people are great lovers of nature, and rich and poor, alike, leave their homes to picnic in the country; even those who cannot leave home to get far out into the country, flock to the city parks.

All take provisions to spend a day and a night under the trees, eating, romping, singing their national songs, of which the above is one, playing games and dancing on the green, for all these activities are a part of the day's routine. All the city shops are closed and the city, as well as the people, is in gala dress. The country or peasant costume is, however, the accepted attire for the sports of Midsummer Day, and is adopted by all classes for wear on that day, doubtless on account of the freedom of movement permitted by the costume.

An interesting fact which might be stated here is that the Swedish people have a national dress which was established in 1777, by Gustavus III, who promulgated some very rigid laws concerning dress, doubtless intending to prevent the extravagant fashions even then in vogue in other countries.

What a gala time in every way, this Midsummer Day must have been! Let us think of the possibilities of such a day, of the Leaf-Market, and the trimming of our homes at such a season, when nature would quickly replenish the woods and trees. Might this not be a useful suggestion for a "sane Fourth"?

DIRECTIONS FOR PATTERN

The Swedish costume illustrated this month has a slightly different problem in that the skirt and bodice are fastened together, a thoroly hygienic manner of dressing, in allowing the weight to come from the shoulders.

The skirt is straight and full, but is sloped up in front 1-2″ to meet the high bodice. This allows the full skirt portion of the dress to be seen slightly above band of apron. The skirt in length should nearly reach the ankles. The bodice is laced up the front with cord, allowing the points to spread apart at the top. A white guimpe is worn under this bodice and for the front and back of the guimpe pattern, we will utilize the front and back of waist pattern in the November number of The School Arts Book. On the front pattern referred to, measure down 4″ from A on line AB, and 1″ from Point 3 on under arm

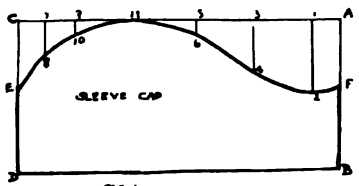


FIG 1

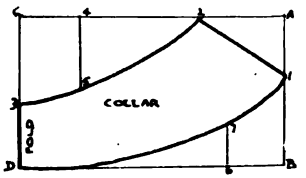


FIG 4

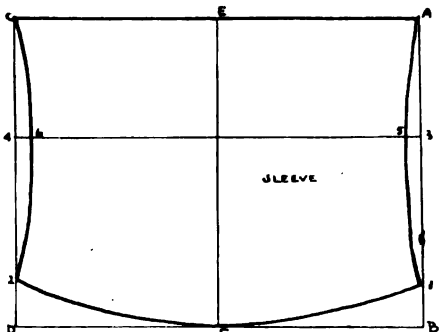


FIG 2

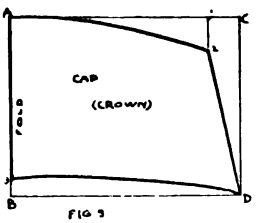


FIG 5

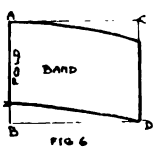


FIG 6

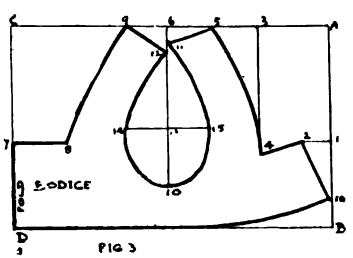


FIG 3

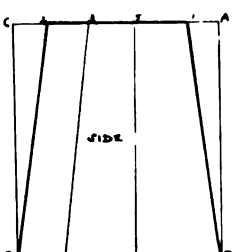


FIG 7

PATTERNS FOR 19" DOLL

SCALE 4" = 1"

seam. Connect these points, and cut on this line. On the back pattern measure 1″ from Point 5, on under arm seam, and 2″ from A on line AB. Connect points and cut.

Fig. 1. Cap of sleeve. Paper, 5 1-2″ x 2 1-2″. Place paper and letter as in chart.

Point 1 = 1-2″ from A. Point 2 = 1 1-8″ from 1. Point 3 = 1 1-2″ from A. Point 4 = 1″ from 3. Point 5 = 2 1-2″ from A. Point 6 = 1-4″ from 5 Point 7 = 1-2″ from C. Point 8 = 1-2″ from 7. Point 9 = 1″ from C. Point 10 = 1-2″ from 9. Point 11 = 3 1-2″ from A.

Points E and F = 1″ each from C and A, respectively. Draw curve for top of sleeve from E to F, thru points 8-10-11-6-4-2.

Fig. 2. Lower portion of sleeve. Paper 5 1-4″ x 7″. Place paper and letter as in chart. Divide paper in halves by line EF. Paper may be folded on this line, and only one-half drafted, cutting thru the two thicknesses of paper, in order that the pattern may be placed open on two thicknesses of material.

Point 1 = 3-4″ from B. Point 2 = 3-4″ from D.

Draw curve for lower edge of sleeve.

Point 3 = 2″ from A. Point 4 = 2″ from C. Point 5 and Point 6 = 1 4″ from 3.

Draw curve for inside seam of sleeve.

Fig. 3. Bodice. Paper 5 1-4″ x 3 1-2″. Place and letter as in chart.

Point 1 = 2″ from A. Point 2 = 1-2″ from 1. Point 3 = 1 1-8″ from A. Point 4 = 2 1-4″ from 3. Point 5 = 1″ from A. Point 6 = 2 3-4″ from A. Point 7 = 2″ from C. Point 8 = 1″ from 7. Point 9 = 2″ from C. Point 10 = 2 3-4″ from 6. Point 11 = 1-4″ from 6. Point 12 = 1-2″ from 6. Point 13 = 1 3-4″ from 6. Point 14 = 3-4″ from 13. Point 15 = 3-4″ from 13. Point 16 = 1-2″ from B.

Draw curve for arms eye from 11-15-10-14-12.

Fig. 4. Collar. Paper 4 1-2″ x 2 1-2″. Place and letter as in chart.

Point 1 = 1″ from A. Point 2 = 1 1-2″ from A. Point 3 = 1 1-2″ from C. Point 4 = 1″ from C. Point 5 = 1 1-8″ from 4. Point 6 = 1″ from B. Point 7 = 3-4″ from 6.

Draw curve for inside of neck 3-5-2. Draw curve for outside edge of collar D-7-1.

Fig 5. Crown of cap. Paper 4″ x 3″. Place and letter as in chart.

Point 1 = 1-2″ from C. Point 2 = 1-2″ from 1. Point 3 = 1-4″ from B.

Fig. 6. Band of cap. Paper 2 1-4″ x 1 3-4″. Place and letter as in chart.

Point 1 = 3-8″ from C. Point 2 = 3-8″ from B.

Fig. 7. Side of cap. Paper 3 1-2″ x 4″. Place and letter as in chart.

Point 1 = 1-2″ from A. Point 2 = 7-8″ from C. Point 3 = 1 1-8″ from C. Point 4 = 3-8″ from D. Point 5 = 2″ from C. Point 6 = 2 1-8″ from D. Line 3-4 and 5-6 = edges of plaits.

In cutting place parts of pattern with lines AB and CD, straight, lengthwise of material. Unless otherwise specified the portions marked "fold," are to be placed on a lengthwise fold, that is, a fold parallel with the selvage. Cut four sections for the band of cap, and two sections for the collar and crown of cap. Other portions are to be cut double only.

To make.—Seam two sections of collar together, except on inside curve of neck, and turn and crease. Place center of collar, at center back of neck, and seam upper portion of collar to waist, from the wrong side, then hem under portion of collar into position over seam.

Gather straight (upper) edge of sleeve into lower edge of cap before seaming inside seam of sleeve. Finish wrist with ruffle. Trim collar and sleeve with bands to match bodice. Hem bottom of guimpe, and run a draw string in.

Neck and armseye of bodice are to be faced with bands of same, cut on a true bias. Skirt is to be gathered, and sewed to bodice with placket in front, under apron.

Having cut four portions for band of cap, seam each pair around lower edge, and plait crown portion of cap, into upper edge of band, allowing the plaits to extend to top of crown, then seam top edges of crown portions. Sew lower edge of crown to upper edge of band, then insert plaited side portions at each side, having the plaits turn towards the back. Seam at each edge, then face inside portion of band, and quilt band vertically.

The costume in the picture is made of a mercerized muslin, the skirt of a magenta color, and the bodice of yellow. The apron is of green, with bands of yellow, and the cap and guimpe are of white lawn.

For a pattern in a ten or twelve year size, multiply these dimensions by three.

BLANCHE E. HYDE

Director of Household Economics
Newton, Massachusetts

METALRY

NIGHT LIGHT

THE problem for this month is very different from those that have preceded, but I trust it will be one of interest to many boys because of its usefulness and its simplicity.

It is so simple in construction that a boy of nine years can make it and as for materials, two discarded tin cans, a little soldering fluid and a piece of soft solder are all that are required

In making the night light it is first necessary to cut a pattern from a piece of heavy wrapping paper. The pattern is to be cut a little longer than three times the diameter of the can, and as wide as the can is high. Fold this piece of paper in the middle and with a pair of scissors cut to the line as at Figure 1. After cutting this pattern, Fig. 2, place it about the outside of can No. 1, with the seam of the can at the front. Holding it in place with the left hand, draw a pencil line about the top edge of the pattern. Next take the curved shears and cut to this line beginning at the top, Fig. 3. In using the shears the cutting edge should come in contact with the line at but one point, see Fig. 3, A. After cutting, it will be necessary to use a file and piece of emery cloth to smooth the edges. From can No. 2 we are to cut pieces for the handle and the candle socket. Cut it down the seam at the side, Fig. 4, and around the bottom so that the tin may be straightened out in a flat sheet, Fig. 5. As the diameter of the candle used for this light is 3-4 of an inch, the diameter of the socket must be 3-4 of an inch, so a strip is cut as long as three times the diameter, plus 1-2 inch which is allowed for lapping, and 1 inch wide, which

NIGHT LIGHT

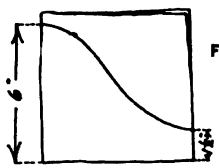


FIG. 1.

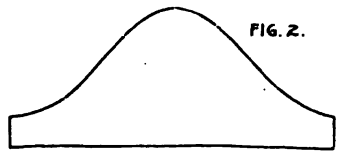


FIG. 2.

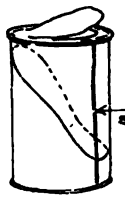


FIG. 13.

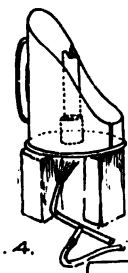
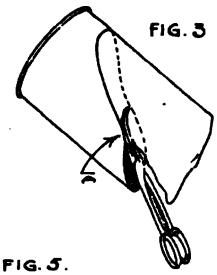


FIG. 3



CAN NO. 2.

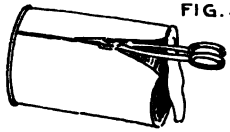


FIG. 4.

FIG. 5.

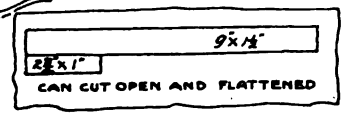
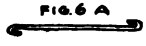


FIG. 6 A



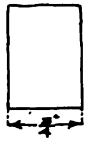
CANDLE SOCKET

FIG. 6 B.

FIG. 7.

FIG. 8.

FIG. 9.



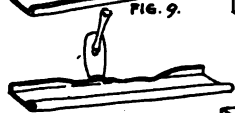


FIG. 10.

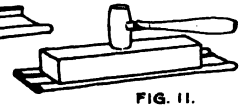
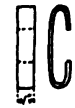


FIG. 11.

FIG. 12.



ROSE.

is to be the height of the socket. The ends of the strip are turned as shown at Figure 6, A and B, and brought together and clinched, Fig. 7. The strip for the handle is 9 inches long and 1 1-2 inches wide, 1-4 of an inch being allowed on either side to turn in, in order to give the handle a little more thickness and a finished edge.

To turn the edges of the handle, take two pieces of wood about 7-8 of an inch square and 10 inches long and place the strip for the handle between these pieces, having the strip project above 1-4 of an inch as at Figure 8 and fasten them in the vise. Now take another piece of wood about the size of the other two and place it as shown Fig. 8, A, and turn the edge over at right angles. This is done on both edges, shaping it as at Figure 9. With the mallet, turn these edges over almost flat, Fig. 10. It may not bend evenly at all points, but by placing one of the 7-8 inch strips as at Figure 11, the edges are trued up with the mallet. The handle is next bent into shape as at Figure 12. A broom handle or a piece of gas or steam pipe will answer for a form to bend it on. It is easily bent with the fingers.

The handle and candle socket are now to be soldered in place, and as the light is made of tin, soft solder is used.

Enough soft solder and soldering fluid for this piece of work may be had at any tinsmith's or plumber's shop for two or three cents or it may be found at hardware stores.

To solder the socket, first scrape the tin bright where the socket is to be placed and coat the surface with the soldering fluid. Then put the socket in place and put two or three pieces of solder next to the edge, on the inside of the socket. A soldering iron would be the proper thing to use for soldering this but as we already have the small blow pipe we can make that do very well. When everything is ready, place the light on two bricks or charcoal blocks as at Figure 13 and heat the center part of the bottom with the blow pipe until the solder flows around the joint. Soft solder fuses at a very low temperature so care must be taken not to get it over heated. The handle is soldered in the same way. Clean the tin where the handle is to be joined; coat with the soldering fluid, and hold handle in place with binding wire. Place a small piece of solder at top and bottom of handle and apply the flame on the inside. After the soldering is all done and after the light is cleaned with some kind of metal polish or powdered pumice and water, it is ready for use.

AUGUSTUS F. ROSE
Boston, Massachusetts

HELPFUL REFERENCE MATERIAL

FOR MARCH WORK

Illustrative Drawing

Primary Illustrative Drawing, Jessie T. Ames, Book, March 1905. Illustrative Drawing, Frederick Whitney, Council Year-Book, 1902, p. 92. Graphic Expression in Childhood, Julia C. Cremins, Council Year-Book, 1903, p. 46. Primary Drawing, Walter Sargent, Council Year-Book, 1904, p. 37.

On Arranging Groups

Relationships in Grouping, Frank A. Parsons, Book, February 1905. Examples of Groups, Book, Outlines for January and February each year. Pictorial Composition, Henry T. Bailey, Council Year-Book, 1902, p. 100. Pictorial Composition, H. R. Poore. Prang Text Books. Manual Arts Drawing Books. Applied Arts Drawing Books.

On Drawing Groups

Drawing of Groups, Fred H. Daniels, Book, February 1906. Tests and Aids in Appearance Drawing, Harold H. Brown, Book, January 1905. Drawing from Groups, A. K. Cross, "Freehand Drawing," p. 9. See also Mr. Cross' "Light and Shade." Freehand Perspective and Sketching, Dora Miriam Norton.

Technique

Pencil Sketching from Nature, Dr. James P. Haney Pen Drawing, Charles D. Maginnis, Bates & Guild Company. Still Life in Water-colors, Mary B. Jones, Book, February 1904. Water-color over Charcoal, Dora M. Norton, Book, January 1905. A Course in Water Color, Prang Educational Company.

Don't get discouraged. It is often the last key of the bunch that opens the lock.

—Edward Fairbanks.

Earth seems asleep still but she's only feining

FEBRUARY

"Joy in Life – that is what originates art; that is the end which it serves."
Wm. M. Conway

1 TUE ◑ The woodchuck appears.
If he can see his own shadow he returns to his burrow for another nap. "If Candlemas day be cloudy and rain, Old winter is gone not to come again."

2 WED ◑ Candlemas Day – Midwinter – "Half your coal and half your hay." Guercino b. 1590. Italian painter who, as a boy, attracted attention by drawing on a door. Bartholdi b. 1834. Alsatian sculptor. Designed the colossal Liberty in New York harbor.

3 THU ◑ Sidney Lanier b. 1842. Wrote:

Down mildest shores of milk-white sand,
By cape and fair Floridian bay,
Twixt billowy pines — a surf asleep on land —
And the great Gulf at play,
Past far-off palms that filmed to naught,
Or in and out the cunning keys
That laced the land like fragile patterns wrought
To edge old broideries,
The sail sighed on all day for joy,
The prow each parting wave did leave
All smile and song, with sheen and ripple coy,
Till the dusk diver Eve
Brought up from out the brimming east, The oval moon, a perfect pearl.

4 FRI ◑

5 SAT ◑

6 ◑

7 MON ◑ Charles Dickens b. 1812.
Apostle of kindness and good cheer.

8 TUE ● John Ruskin b. 1819. { Impassioned advocate of Beauty. Champion of Art. Artist in words. The Turner of the pen.
"All great art is praise."

9 WED ● Ash Wednesday. Lent begins. "The Lord hath anointed me to preach good tidings ... to give unto them beauty for ashes. *Isaiah.*

10 THU ● Were it not for me,
Said a chickadee, Not a single flower on earth would be, ...
I tell Jack Frost when 'tis time to go
And carry away the ice and snow;
And then I hint to the jolly old sun,
'A little spring work, sir, should be done.'
And he smiles around
On the frozen ground. *Sidney Dayre.*

Henceforth I wear
No stripe but thine,
Ashes and jet
All hues outshine.
Emerson

11 FRI ●

12 SAT ● Abraham Lincoln b. 1809.
I am not bound to win, but I am bound to be true. I am not bound to succeed, but I am bound to live up to what light I have, said this Liberator of men.

Darwin b. 1809.
Liberator of minds, who said, I have called this principle, by which each slight variation if useful is preserved, Natural Selection.

13 ◑

14 MON ◑ St. Valentine. circ. 270.
Great is thy name in the rubric, thou venerable arch-flame of Hymen. *Lamb.*

Deep in her bosom thrills a sweet unrest

FEBRUARY

Look! the mossy trunks
Are cased in the pure crystal; each light spray
Nodding and twinkling in the breath of heaven
Is saddled with its trembling water-drops
That glitter with an amethyst of light.
Bryant.

15 TUE ◐ **Daubigny b. 1817.** French painter and etcher, fond of rivers and noble trees.

16 WED ◐ Come see the north wind's masonry.
Out of an unseen quarry evermore
Furnished with tile, the fierce artificer
17 THU ◐ Curves his white bastions with projected roof
Round every windward stake, or tree, or door. .....
Nought cares he for number or proportion.
Ralph Waldo Emerson.

18 FRI ◐ **Galileo Galilei b. 1564.** "And yet it does move." Patient and brilliant scientist. He loved art and cultivated music and poetry.

19 SAT ◐ **Copernicus b. 1473.** Father of modern astronomy.
Now twilight lets his curtain down
And pins it with a star.
Lydia Maria Child

20 ✠ ◐ Soon as the evening shades prevail
The moon takes up the wondrous tale
And nightly to the listening earth
Repeats the story of her birth. *Addison.*

21 MON ○ **Meissonier b. 1815.** "Prince of genre painters."
French portraitist; painter of historical subjects; miniature style.

22 TUE ○ **George Washington b. 1732. Lowell b. 1819.***
Father of "Brother Jonathan," the "Uncle Sam" of the cartoonists.

23 WED ○ **Mesdag b. 1831.** Dutch. Lover of the sea and sunlight.
"Undoubtedly one of the best modern painters of marines"
Van Mack.

24 THU ○ **Winslow Homer b. 1836.** One of the three "greatest masters" of marine painting which America has produced.

25 FRI ◑ In winter, when the dismal rain came down in slanting lines,
And Wind, that grand old harper, smote his thunder-harp of pines.
When icicles hang by the wall. *Shakespeare.* *Alexander Smith*

26 SAT ◑ **Victor Hugo b. 1802. Vedder b. 1836.**
"Lover of all free winged things." American painter, symbolist, and designer. Illustrator of the Rubáiyát.

27 ✠ ◑ **Longfellow b. 1807.**
Said, The hooded clouds, like friars
Tell their beads in drops of rain.
28 MON ◑ *Be noble! and the nobleness that lies
In other men, sleeping but never dead,
Will rise in majesty to meet thine own. *James Russell Lowell.*

Elizabeth Kellogg
M.T.B.

If all the world and love were young ♡
And truth in every shepherds tongue ♡
These pretty pleasures might me move
To live with thee and be thy love ♡ ♡

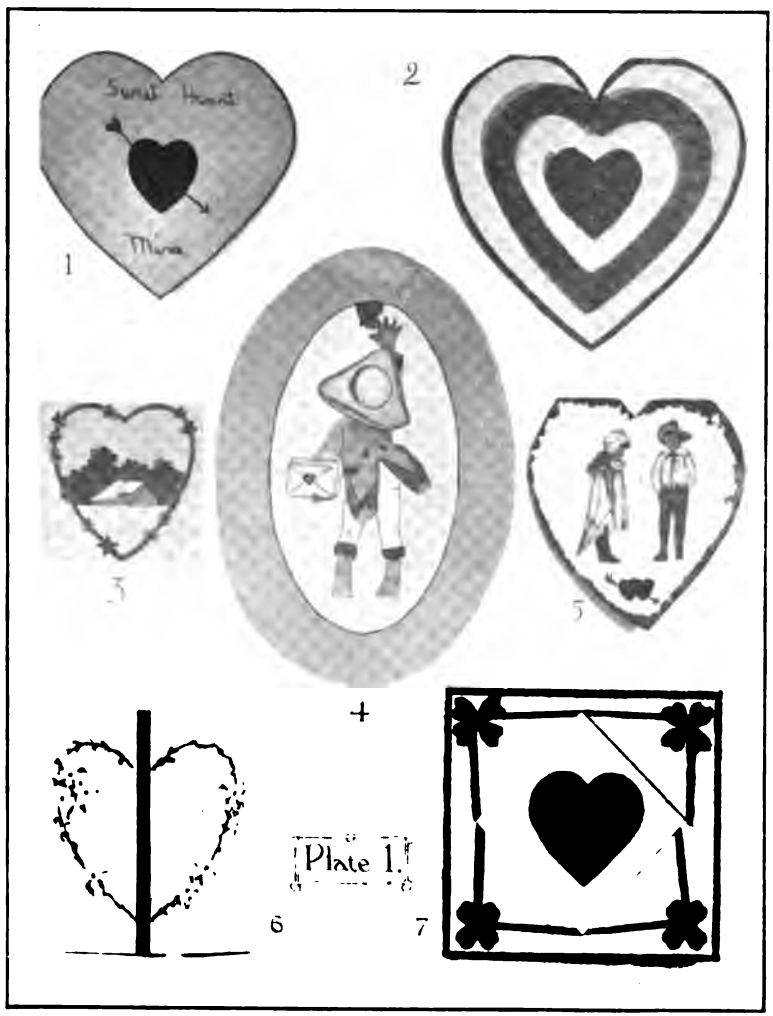
A drawing by Miss Florence Pretz, Kansas City, Mo., illustrating a rhyme by Sara Hamilton Birchall of Chicago.

EDITORIAL

WHEN I hear a wise and prude-nt person objecting to the annual visit of St. Valentine to the schoolroom, I see again old King Canute in his royal chair on the beach talking to the German Ocean! When old Father Time omits the fourteenth of February, old St. Valentine may omit his festival. Nay, I verily believe in that event, he would have it celebrated the next day! Valentines will continue to be.

To be perfectly frank, I myself must plead guilty to a lingering affection for the intricate stamped paper marvels created by the royal valentine makers of Worcester, Massachusetts. These diaphanous, double-decked constructions, decorated to death, ghostly simulacra of frosted wedding cakes, have in many cases a beauty not to be despised. They are as consistent in all their elements as a froth-heap below a waterfall, or a chamber in the Alhambra. They are not ugly. The ugly ones are chiefly the so-called comic valentines, brutally conceived, badly drawn and vilely colored. Other ugly ones are sometimes made by children. These are not intentionally bad,—perhaps the children have done their best,—they are bad because the children have been left to themselves to chase will-o'-the-wisps. Children cannot produce "store valentines," nor good comic valentines, but they can be led to produce innocent missives—not too bad to send to a friend. The valentine tide may not be successfully dammed, but it may be successfully directed.

Plate I contains a few of the best valentines I have received from children during the past two years. The first is the front part of a double heart, made from paper, hand colored, by Mary Meltzner, fourth grade, Elmira, N. Y. The second, "a heart of gold, tremulous" (raised on paper springs) within which another heart appears, was made by Vera Rich, third grade, Oxford, Mass. The third, illustrating the sentiment, "There is a home in my heart for you," came to me anonymously. The fourth is from a mimeographed outline made by the teacher, beautifully colored

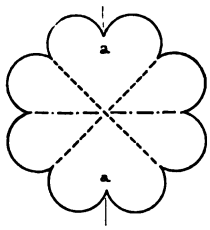

Sweet Heart
Mine
1
2
3
4
5
6
7
Plate 1.

by Olive Cargel, grade six, Oxford, Mass. The fifth was made by cutting the various elements from paper, and pasting them upon the heart-shaped background, by little May Quigley, second grade, Division Street school, town not given. The sixth came from Anna Lowe, eighth grade, Portland, Maine. The two leaves unfold, revealing within the sad words, "My heart is broken as you see, all on account of love for thee." The seventh was made by Alice St. Pierre, Woonsocket, R. I., a little lady in a fourth grade. A square is pierced on the diameters, the corners are folded back, caught with four-leaf clovers for good luck, revealing the orange-colored heart within, flaming with good-will. That which is shown constituted the third page of a little booklet. Its first page, the cover, contained the four-leaf clover symbol made of hearts, the words, "For Master Louis," and the date. On the second page were inscribed the familiar lines

"This valentine comes from a heart that is
true
And faithful and loving forever to you."

Some teachers object to so personal an interpretation of the sentiment of good-will. They would spread it abroad thruout their entire school. To such, Plate II offers a suggestion. The chain of hearts, of which A is the cardboard pattern, and B a

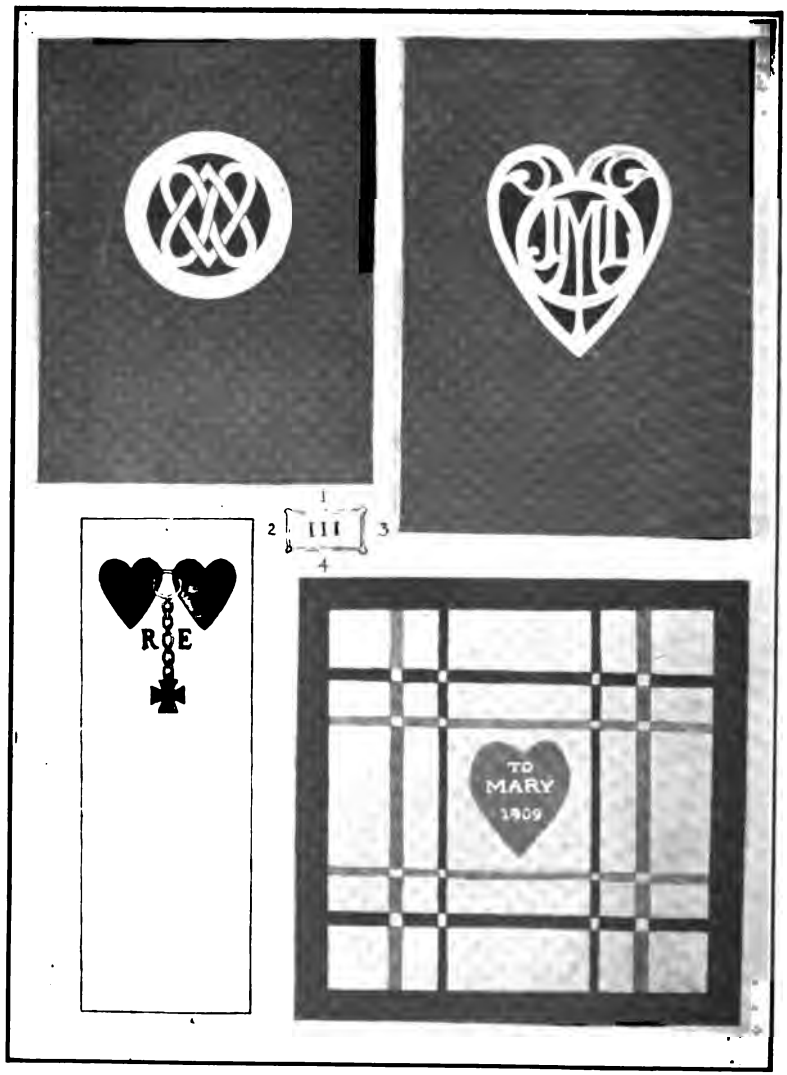
single link cut from folded paper, and there spread open, was designed by a high school boy, Scituate, Mass. The links may be used also to make the "good luck flower," E; while the pieces cut from the links, C, may be used to make another form of that flower, D; or the "rose of hearts," F. These may be used for decorating the schoolroom, February fourteenth. Another pretty decoration may be made by cutting out four figures like this diagram, from squares of paper folded on the diameters and diagonals, and pasting the four together by the backs of the parts a a, to produce a shutting-and-opening ornament such as that shown in the half-tone illustration.

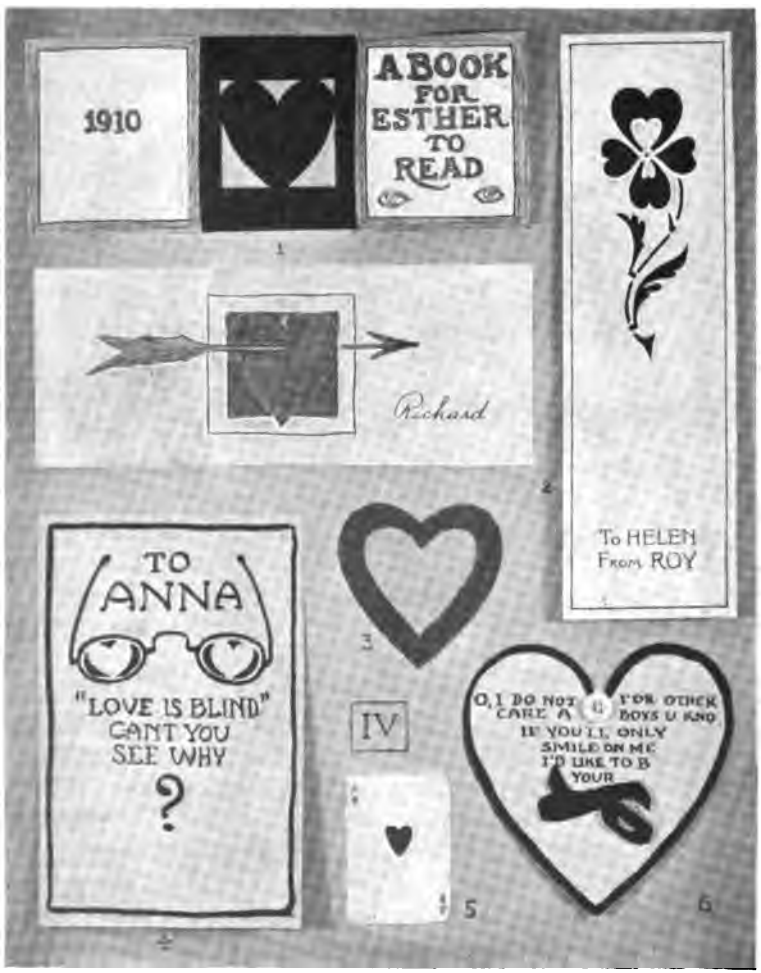


But as a rule the old, old sentiment will be dominant. The wise teacher will be on the watch for material to use in improving the quality of the personal valentines his pupils will produce. He will save such a book-cover as "The Wing of Love," for its winged heart; such a little cherub as that on the next page, that he may have two captive hearts to fly on St. Valentine's day. He will save any valentine which has a good idea in it, and redraw it in better form. A valentine bookmark was suggested by a very crude drawing which came to me last year with this rhyme scrawled on the back:

1, I love,
2, I love,
3, I love,
I say,
No matter what
The daisy says,
I love You
Anyway.

This Japanese boy with his lantern was suggested by a valentine from Lowell, Mass. On Plate III are four designs which I have worked out from suggestions from various sources. The first embodies a clever device, two interlaced hearts, of one endless piece, from the carved door of an old marriage cabinet of the XIIIth century, in the Bavarian National Museum, Munich. The second illustration is from a booklet cover. The hearts of Robert and Eva are chained together, and sealed with the sign of the cross, the Maltese cross, symbol of devotion, the knightly devotion of the days of chivalry. This device first appeared in The School Arts Book in 1904. The children like to do the "cut-out" work. The third illustration on the plate offers a suggestion within reason. Such work must not be


1
2
111
3
4
R E
TO
MARY
1909



Valentines produced by redrawing and rearranging, with the fewest possible changes, the crude work of children.

too elaborate. The heart with its circle containing the initials of the beloved, is not too difficult for grammar grade pupils to attempt. The fourth is a clever use of the plaid pattern, drawn on tracing paper. The square is the cover of the two-leaved folio cut out to form a frame. Within this frame is the plaid, of such colors as the maker may fancy. Thru the plaid the heart is visible behind the inscription. Opening the folio one finds within not only the heart but selections from the old song beginning

"O, wert thou in the cold blast
On yonder lea . . .
I'd shelter thee, I'd shelter thee."

Plate IV contains other transformations of children's work. The original of 1 came from a fifth grade pupil; everything but the idea is different. The outside and the inside of the folio are shown one above another. The perforated book-mark, 2, is designed from the "heart's-ease." Made of pure white paper with a backing of deep rich red, it is handsome. "Your heart in mine," 3, is simple and pretty if made of the right colors of paper. Two hearts, the cause of Love's inability to see clearly, is the motive in 4. "Heart's are trumps, and you're my ace," is the basis for 5. The "comic" valentine, 6, is added because such things do appeal so strongly to some children, especially boys. A half dozen valentines having this motive in one form or another came to me last year from as many different states. Plate V shows a new rendering of an old rhyme. The device beneath the words may be either drawn and painted or made from carefully selected colored papers. When the cover (at the left) is folded over it, the perforations of the different parts of the design show the flowers of the proper colors. On the outside of the cover is written "To Elizabeth, February fourteenth, 1910."

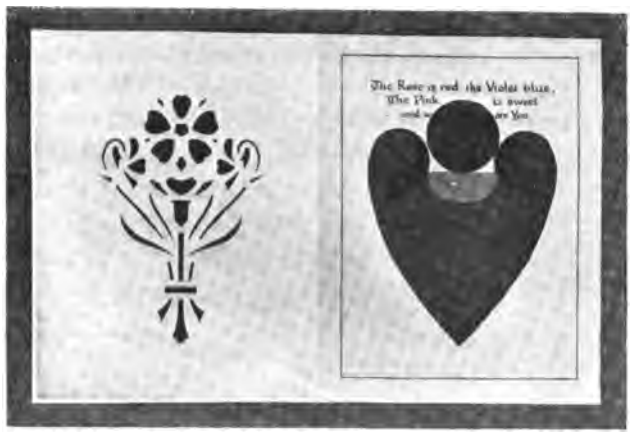


Plate V.

Among the rhymes which came from the valentines by school children are the following:

This be the token
And the sign,
That I'm your loving
Valentine.

Tho' skies be gray,
Or skies be blue,
Remember me
As I do you.

My darling, keep
For me a part
Of your loving
Faithful heart

As long as there's
A sun to set,
There'll be one girl
Who loves you yet.

My heart has flown to you to be your Valentine,
O send me yours, my dear, to take the place of mine.

Beauteous maiden, O be mine;
Each hour I sigh for thee.
Thou only art my valentine;
Heed thou thy sweetheart's plea.

This last has the form of an acrostic rubricating the name of the maiden.

¶ The Tailpieces in this number are appropriate to the month. The great war eagle is from a German publication; the seal of the United States is from the cover of a St. Nicholas Magazine. The others I made myself, for the fun of it. These all may be of use in language or history papers. Here are a few quotations from the words of Lincoln which may also be of service. These came from the G. A. R. Flag Day pamphlet, published for the Rhode Island boys and girls by the State Commissioner of Public Schools, Dr. Walter E. Ranger.

Liberty is your birthright.
Learn the laws and obey them.
Revolutionize through the ballot box.
I am nothing, but truth is everything.
I shall stay right here and do my duty.
Killing the dog does not cure the bite.
If I can learn God's will, I will do it.
My rightful masters, the American people.
The Union is older than any of the States.
As our case is new, so we must think anew.
Workingmen are the basis of all governments.
Trust to the good sense of the American people.
Mercy bears richer rewards than strict justice.
Keep the jewel of liberty in the family of freedom.
I am glad to find a man who can go ahead without me.
Give us a little more light, and a little less noise.
You must not give me the praise—it belongs to God.
Let the people know the truth, and the country is safe.
It is not best to swap horses while crossing a stream.
He sticks through thick and thin—I admire such a man.
Ballots are the rightful and peaceful successors of bullets.
With firmness in the right, as God gives us to see the right.
You may say anything you like about me—if that will help.
It is not much in the nature of man to be driven to do anything.
Success does not so much depend on external help as on self-reliance.
It is better only sometimes to be right than at all times wrong.

The following is from a good primary booklet on Washington. It came to me from Margaret Lang, Grade II, West Manitowoc, Wisconsin. I have cut the illustrations from the pages and re-arranged them to save space.

This is the cherry tree,
Old in story;
A brave boy gave it
Its greatest glory.

These are the cherries
The good tree bore,
Sometimes less and
Sometimes more.

This is the hatchet
Which did much harm
With the sturdy strokes
Of a boy's right arm.

Small was the boy,
But he scorned a lie.
To be brave and honest,
All can try.

Here is a queer
Continental hat;
Our greatest general
Wore one like that.

Here is the man,
You know him well;
Give a rousing cheer
When his name you tell.

¶ The cover design for this number I clipped some time ago from a German publication. The K is probably the sign that Alexander Koch of Darmstadt is responsible for so pleasing a design. This shower of rose leaf hearts is an example of l'art nouveau method of filling the circle. The old masters of the West didn't happen to think of this; to the old masters of the far East we are indebted for such occult embodiments of the laws of rhythm, balance, and harmony.

¶ The contributed articles offer sufficient variety to stir the various minds represented by all the names on the subscription list. Mr. Arthur D. Dean, the efficient Chief of the Division of Trades Schools, State of New York, writes of the last great meeting for the promotion of industrial education, while Miss Alice B. Muzzey presents examples of historic art. Miss Mary A. Pearson, Director of the Art Department, State Normal School, North Adams, Mass., makes practical suggestions for handling the old subject of model and object drawing, while Mr. Charles M. Miller, Assistant Supervisor of Manual Training, Los Angeles, Cal., presents a new subject in constructive and decorative art (or rather an old subject, new to the schools), and in a new way. The old subject of Color is presented from a fresh point of view. Theories of color multiply. "In this seeming exuberance" (as an old author phrases it) "ignorance might lie down in hopeless uncertainty and declare that what required such an immensity of labor to search out, must absolutely be inscrutable." But, as our learned and eloquent author further observes, "With the active investigating mind, difficulties are calculated to create exertion." Mr. Wilson, who contributes to this number the first of a series of three articles on color, has a mind of that type. He has pushed his investigations so far that a person of ordinary attainments in music and in painting is unable to follow him. He appears to soar into the empyrean. But when Mr. Wilson

takes palette and brush and paints landscapes "out of his head" to illustrate his theories, to express any mood he pleases, and produces harmonies of color every time, harmonies which his brother artists admire, he seems less visionary. Mr. Munsell has worked out a perfectly consistent scientific classification of colors, and made possible the exact definition of any given tone. Dr. Ross has worked out the sequences of values and hues of color which make possible the finest harmonies. Mr. Wilson's aim, as I understand it, is to establish a simple key-board in color upon which harmonies in color may be played by a child *as certainly* as harmonies in music may be played upon the key-board of a piano. This is, without doubt, "a consummation devoutly to be wished." Let us hear Mr. Wilson with an open mind, and question him with a judicial spirit. His training as an artist (Julian School, Paris, and Royal Academy, Munich), together with his successful experience as a teacher, entitle him to attention.

¶ Gradually the good work in drawing and design in the public schools is winning recognition from hard headed business men. Such recognition is assuming tangible form.

The prize of $25.00 offered by the Milton Bradley Company for a cover design for their book Paradise of Childhood, was awarded to Florence E. Hay, of Erie, Pa., a student at the Philadelphia School of Industrial Art. Miss Hay's design was chosen from among fifty-two designs submitted, and will be printed in brown, white and gold on a lighter brown background. We print an illustration of it herewith.

The Chamber of Commerce, Birmingham, Ala., has recently inaugurated a contest, open to all, for an Emblem of the City, and has offered $200 as a prize for the best design. For the conditions of the contest write to Joseph B. Babb, Secretary, Chamber of Commerce.

The American School Peace League has offered two sets of prizes for an official symbol which will lend itself to decorative purposes, brooches, scarf pins, etc. The contest for the first set of prizes is open to the pupils in the public and private elementary schools of the United States; the second set to pupils in secondary schools. The prizes in each set are $75, $50, and $25 for the winning designs. For complete information, write to Mrs. Fannie Fern Andrews, 405 Marlborough Street, Boston, Mass.

¶ Mr. Theodore M. Dillaway, for ten years Director of Drawing in the public schools and of the Normal Art Course in the Albright Art Academy of Buffalo, has been elected Director of Drawing and Manual Training for the city of Boston. Mr. Dillaway, a graduate of the high school, Somerville, Mass., of the Massachusetts Normal Art School, and of the Delacluse Art School in Paris, was one of the teachers chosen by the Mosely commission to inspect drawing and art in the schools of England. He has made a record in Buffalo which guarantees his success in the New England metropolis. In announcing his resignation, one of the Buffalo newspapers said, "Not only in his professional but equally in his personal capacity his influence has been of the best in every respect, and his departure is noted with sincere regret."

¶ The School Arts Book will offer special prizes for good school work related to the Birthdays of Great Americans, Easter, Arbor Day, Patriots' Day, and Graduation Day. Read the Special Contest announcements.

Easy to match what others do,
Perform the feat as well as they;
Hard to out-do the brave and true,
And find a loftier way. —Emerson.

CORRESPONDENCE

Pennsylvania Museum and School of Industrial Art.
Philadelphia, January 8, 1910.

My dear Mr. Bailey:

I want to thank you for your excellent editorial in The School Arts Book for January, especially the section in which you discuss, with a frankness as admirable as it is rare, the very widespread failure to teach drawing decently in American schools. The failure is not universal, and the exceptions you note are well taken and well deserved. There are others also, of course, but the failure is widespread all the same and it is dismal and discouraging after all the energy and enthusiasm that has been expended in promoting the study for more than thirty years. You ask, "I wonder why it is?" Well, I will tell you. We have absolutely no standards of what is good in drawing that anybody respects, if we except the work done in the everlasting life class, as this is conducted in Paris. That this does furnish a fairly authoritative standard of good draughtsmanship for the professional artist or the teacher of advanced work in drawing is undeniable, but it has about as much significance in establishing just criterions for drawing in the public schools as a knowledge of Hebrew has as a prerequisite for the inculcation of the golden rule.

Wherever it is applicable as in "pose" drawing or drawing from birds, animals, etc., I am quite willing to accept the life class standard of excellence and have the teachers get as much as possible of it before tackling such work, but in the case of the vast majority of aims in modern education which the drawing teacher is obliged to recognize and expected to represent, the life class training gives her no guidance at all. In design, and in all inventional work, constructional, illustrative or what not, as well as all fundamental "representation" work our teachers are, for the most part, hopelessly at sea, and not only at sea, but lost in the fog. How dense the fog is the very language they use in describing their bewilderment shows. It is not really language at all, but only the jargon of a fumbling and false psychology. What does the ridiculous talk about "space relations" and "motor activities" and "apperception" and "correlation" and "notan" and "chroma" and all the rest of it mean except that those who ought to be the teachers of children are groping like lost souls in a murky limbo in which they can only communicate with each by means of sounds? We are not only at sea; we are in danger of being swamped by false and foolish theories as to what it is all about, and we have almost entirely forgotten that drawing is very distinctly and definitely a disciplinary study.

The play impulse that gave us the kindergarten is carrying us away with it and helping us to forget what earnest application means. Our children play

at design and composition, at representation and illustration all the way up to, and thru the high school. But our grasp of the fundamental truths and our enforcement of their requirements are as weak as water. You indicate the true remedy and you print with appreciative approval a view of a drawing class in Hungary that is working in right lines. But you ask in despair, "Where in America could such a scene . . . . be paralled?" Well, if you will come to Philadelphia I will show you its parallel any day* and I assure you now that such work, and a good lot of it, is the necessary preliminary to any credential or recommendation which the would-be teacher of drawing carries away from the School of Industrial Art.

Elementary art instruction in America is wofully in need of a backbone, and until such a backbone is developed and right standards of what is true and worth working hard for are established, we shall drift in the fog as we are drifting now.

Leslie W. Miller.

McKinley School, Denver, Col.

The Davis Press Co.;

Gentlemen: Will you please, thru your magazine, tell us what paints to use on clay modelings that are to be fired. Respectfully yours,

Clara J. Coney, Principal.

Public Schools of Montclair, N. J.

My dear Mr. Bailey:

Here is my answer to the inquiry about colors to be used for clay which is to be fired. Colors proper for this work are called Underglaze colors. They can be purchased of B. F. Drakenfeldt & Company, 27 Park Place, New York, or Roessler & Hasslacher Chemical Company, 100 William Street, New York. These colors are to be used under a transparent (or bright) glaze. The color is put on the clay, then burned. The piece is finally glazed and burned again, the color showing thru the glaze.

*It is true that our classes do not work out doors from geometrical solids but they do better. They work in big groups from groups of big models centrally placed and brightly lighted so that the shadows are sharp. Those are the main things. One model or group of models so as to have one test for everybody's work, one central, bright light which does not change as even the sun does; then have the whole class in a room arranged on the amphitheatre principle so that everyone gets an unobstructed view of the model. If we could always do this we could appeal to the minds of the pupils and make them understand principles.

If the pottery is not to be glazed these pigments may be used giving the colors named:

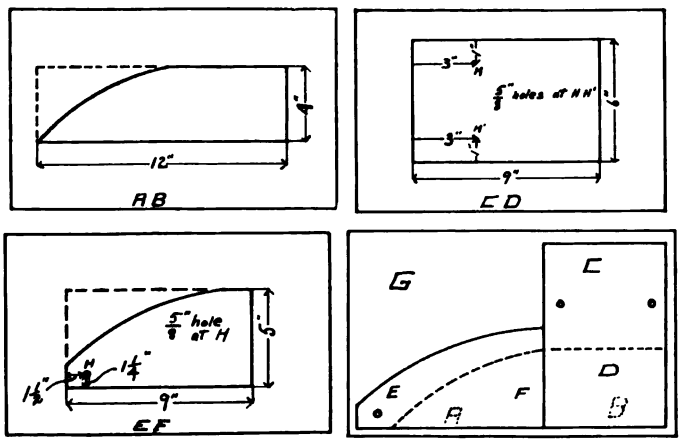
Red oxide of iron.....Brown
Yellow ochre.....Red brown
Black oxide copper .....Green
Black oxide of cobalt .....Blue
Black oxide of manganese .....Dark purple (almost black).

These pigments should be mixed with some of the clay used for pottery and painted on before the things are burned at all. Very truly yours,

Cheshire L. Boone.

My dear Mr. Bailey: Oneonta, New York, January 1, 1910.

I am enclosing a description and diagrams of a skee press that I have found very satisfactory. I hope you may think it worth while.



A simple but effective skee press may be made as follows: Take a piece of pine 4" square and 12" long. Shape one end as you want the bend in the skees to be. See cut AB. From 1" stuff make two blocks 6" wide and 9" long with 5-8" holes bored as shown in cut CD. From 1" stuff make two blocks like EF with holes bored as shown in cut. Nail CD and EF to AB as diagram

G indicates. This must be done very securely for the strain on the press will be great. Thru the holes in EF, run a bolt or rod. After boiling for two hours the part of the skees to be bent, place the ends under the rod thru EF and slowly bend down until the rods may be run thru the holes in CD. Wedges may be placed under rods if a greater bend is desired. Skees should be thoroly dry before removing from press. Very truly yours,

Winifred Brainard.

The Davis Press, Raton, New Mexico.

Gentlemen:

Enclosed you will find one dollar and fifty cents, for another year of inspiration and help as contained in The School Arts Book.

It's a sort of little irrigation canal, out here in this breezy New Mexican town, causing the fertile but undeveloped fields of young western minds to "blossom as the rose." There is no doubt that the future crops in "school arts" productions will be as rich as those of the golden soil of this wonderful country, for the results of cultivation seem to be equally fruitful in either case.

Your little magazine is as uplifting and broadening in its outlook as the view from one of our nearby mountain peaks, and one goes to the daily work after reading it with much the same sensation of having breathed in new hopes and wider visions. Very sincerely yours,

Marjorie Hubbell,
Supervisor of Drawing.

THE ARTS LIBRARY

BOOK REVIEWS

The Art of the Vatican. By Mary Knight Potter. 334 pp. 5 x 7 1-2. 41 full-page illustrations in half-tone. L. C. Page & Co. $2.00 net.

The fact that the new volume is the ninth impression is in itself a testimonial. With rare good judgment in selecting the most significant among the bewildering treasures of this palace, and with an easy grace of diction in describing them, the author is a delightful and reliable guide to the best things. Knowing art history, she does not parade it; understanding technique, she does not magnify it unduly; feeling keenly the beautiful, she does not gush. She treats such antipodal wonders as the Chapel of Nicholas V and the Sistine Chapel with equal sympathy and candor, presenting the work of the artist for admiration, without obtruding her own personal likes and dislikes. This book is worth reading just before visiting the Vatican, and just afterward.

Education Through Music. By Charles H. Farnsworth. 208 pp. 5 x 7 1-2. American Book Co. $1.

This, "The Why, the When, the What, and the How of School Music," is reviewed here because it presents music primarily as an art rather than as a science. In this respect it is almost in a class by itself. The spirit of the author and the aim of the book may be gathered from such sentences as these: "Music teaching which does not awaken the feeling of delight is a failure..... The purpose of education through art is to quicken perception, clarify feeling, and stimulate initiative for the beautiful..... The child should be led to observe that there is something in the structure of the tune appropriate to what it expresses..... In teaching musical design the pupil's experience of design in manual training and art work may be made use of. By demanding thought and imagination, music causes the self to take such a real part in what is heard that throughout life a continual development ever widens and deepens the power for joyous experience." Clever diagrams make vivid the qualities of pitch, duration, and pulse, and the qualities of tone. The book, designed for the teacher, is calculated to open the ears of anybody who desires an intelligent appreciation of music as an art.

Bibliography of Education. Bureau of Education, Washington. 134 pp. 6 x 9. Bulletin, 1909, No. 9.

This document, invaluable to all who intend to keep posted, is noticed here partly for its lack of information concerning the current literature of art

education, manual training and instruction in handicraft. To one unfamiliar with the facts this bibliography would be misleading as regards the place of drawing and design in the elementary schools.

A Fourth Reader. By Frank E. Spaulding and Catherine T. Bryce. 376 pp. 5 1-2 x 7 1-2. Illustrations by Margaret Ely Webb. 65 cents.

This, the fifth in the Aldine Series of readers, is reviewed here primarily for its illustrations. Each of the thirty-four, by Miss Webb, which the book contains is worth the closest possible study, from the point of view of nature study, pose drawing, decorative pen drawing, composition, or expression of character by means of line. They illustrate also the effective use of one color with black and white. Moreover, almost every illustration presents some quaint conceit, some happy and cute turn of line, which reveals the alert, appreciative, joyous spirit of the artist. An indefinable grace pervades everything which comes from the hand of Margaret Ely Webb.

RECENT PUBLICATIONS

THE STONE HOUSE AT GOWANUS. By Georgia Fraser (Mrs. Arkell). A handsome volume of 162 pp. 6 1-2 x 9 1-2, sixteen illustrations and maps. The house figures in the battle of Long Island, was Stirling's Headquarters, Cornwallis's Redoubt, and Washington's Residence. It was built by Nicholas Vechte in 1699, and is an example of Dutch Architecture. The book is notable as the by-product of a busy teacher of drawing. It is published by Witter and Kintner of New York.

WOOD FINISHES. By Frank Forrest Frederick. A whimsical interpretation of the subject; clever, enjoyable, and true, prepared for the Manual Arts Association of Illinois, and put into attractive form by the Manual Arts Press. A pamphlet of eight pages, 6 x 9. Illustrated.

AN ART LECTURE, to be read at the educational art exhibitions and picture displays of A. W. Elson & Company, Boston, Massachusetts. A pamphlet of twenty pages, 6 x 9. While the author follows a rather whimsical order in the study of pictures, his comments are sane, and make one long for the pictures themselves, which are, in every case, recognized masterpieces.

HANDBOOK OF THE TREES. By Romeyn B. Hough. The author describes and illustrates 208 trees, two pages being devoted to each. In addition there is a synopsis of the families and genera with keys; also a glossary and a well-prepared index. Published by the author, at Lowville, N. Y. Buckram, $8; Half-morocco, $10.

LANDSCAPE PAINTING. By Birge Harrison. Stimulating talks on painting from the point of view of the artist, full of invaluable suggestions to the art student and of interest to the general reader. Illustrated. Charles Scribner's Sons. $1.50 net.

POTTERY OF THE NEAR EAST. By Garrett Chatfield Pier. An illuminative account of choice examples of the ceramic wares, in addition to descriptions of the Muhammedan wares of every section of the Near East. Illustrated. G. P. Putnam's Sons. $3.50 net.

PEWTER AND THE AMATEUR COLLECTOR. By Edwards J. Gale. A guide for collectors and lovers of pewter, taking up the history of both American and English work in that metal. Illustrated. Charles Scribner's Sons. $2.50 net.

THE ARTS CONNECTED WITH BUILDING: Lectures on Craftsman-ship and Design. Delivered at Carpenters' Hall, London Wall, for the Worshipful Company of Carpenters. By R. W. Schultz, C. F. A. Voysey, E. Guy Dawber Lawrence, and others; edited by T. Ruffles Davison. Illustrated. Charles Scribner's Sons. $2 net.

AN ART-CRAFT INDEX TO THE JANUARY MAGAZINES

PERTINENT ARTICLES

American Domestic Rugs, J. Lawton Kendrick, House Beautiful, p. 38.
A Reading Journey through Egypt, V. Thebes: Karnak and Luxor. James Henry Breasted, Chautauquan, p. 206.
Art of Alexander Robinson, The, Gustav Kobbe, International Studio, p. lxvii.
Canterbury Cathedral, M. Irwin Macdonald, Craftsman, p. 367.
Cardboard Modelling, A Hexahedron, Felix T. Kingston, Practical Teacher, p. 381.
Drawing in Public Elementary Schools, Denver, Col., Fifth Year, Charles M. Carter, Practical Teacher, p. 374.
Educational Value of Handwork, The, A lecture by Dr. T. P. Nunn, Practical Teacher, p. 372.
Emma Ciardi, Painter of Old Italian Gardens, L. Brosch, International Studio, p. 194.
Etched Book-plates, Frank Newbolt, International Studio, p. 216.
Exceptions to the Rule of Legibility, Harry Lyman Koopman, Printing Art, p. 338.
Good Domestic Rugs, Craftsman, p. 461.
Greatest Pictures of the World, The, I, William R. Valentiner, Ladies' Home Journal, p. 8.
Historic Types of Architecture, V, The Art of the Hittites, Lewis F. Pilcher, Chautauquan, p. 238.
History Lesson and Drawing, The, W. H. Elgar, Practical Teacher, p. 367.
Honiton and the Revival of Lacemaking in Devon, Katharine Lord, Craftsman, p. 444.
Interest in Civic Improvement, The, Charles Mulford Robinson, Craftsman, p. 425.
Landscape Paintings of James Aumonier, The, Walter Bayes, International Studio, p. 175.
Late XVII-Century Furniture, Virginia Robie, House Beautiful, p. 29.
Leaves from the Sketch Book of Norman Irving Black, International Studio, p. 204.
Leon Dabo—Landscape Painter, J. Nilsen Laurvik, International Studio, p. lv.
Madame Debillemont-Chardon's Miniatures, Octave Uzanne, International Studio, p. 210.
Offset Printing Process, The, E. O. Grover, Printing Art, p. 346.
Painters and Pictures, XVIII, Claude Lorraine, XIX, J. M. W. Turner, W E. Sparkes, Practical Teacher, p. 363.
Passing of the Antique Rug, The, John Kimberly Mumford, Century, p. 340.
Pictures at the Recent New York Water Color Exhibition Characteristic of American Life, Craftsman, p. 360.
Relation of Photography to the Printing Art. The, II, Capabilities of Photography, Charles H. Caffin, Printing Art, p. 341.
Some American Figure-Painters, L. Mechlin, International Studio, p. 185.
Spanish Life and Landscape as painted by Luis Mora, Craftsman, p. 402.
Staffordshire Tobys, House Beautiful, p. xii.
Town Planning in Theory and in Practice: The Work of Raymond Unwin; Editor, Craftsman, p. 391.
Typeset Book Ornaments, Lewis F. Day, Printing Art, p. 333.
What do you see? (Editorial) Printing Art, p. 361.

ILLUSTRATORS

Adams, John Wolcott, St. Nicholas, pp. 210-217.
Alexander, John W., International Studio, p. 188.
Alexander, W. H. S., Delineator, borders and initials.
Aumonier, James, International Studio, frontispiece, pp. 175-185.
Bayha, E. F., Ladies' Home Journal, p. 15.

Becher, Arthur, St. Nicholas, pp. 221, 225.
Benda, W. T., Circle, pp. 14, 15; McClure's, frontispiece, pp. 245-249; Outlook, pp. 966-974; St. Nicholas, pp. 258, 260.
Birch, Reginald, St. Nicholas, p. 239.
Black, Norman Irving, International Studio, pp. 204-209.
Blumenschein, E. L., Century, pp. 331, 335, 335.
Bonte, Willard, St. Nicholas, cover.
Booth, Hanson, Circle, pp. 16-18.
Both, Armand, Ladies' Home Journal, p. 15.
Brangwyn, Frank, International Studio, pp. 216, 217.
Bransom, Paul, Outlook, pp. 917-920.
Brehm, George, Ladies' Home Journal, p. 19.
Bridgman, L. J., St. Nicholas, p. 226.
Brooke, Leslie, St. Nicholas, pp. 232-234.
Campbell, Blendon, American Magazine, pp. 353-360.
Ciardi, Emma, International Studio, pp. 194-203.
Claude Lorraine, Practical Teacher, p. 365.
Cleland, T. M., McClure's, p. 250.
Cootes, F. Graham, Scribner's, pp. 101, 104.
Cory, Fanny Y., St. Nicholas, pp. 246, 247.
Cox, Palmer, St Nicholas, pp. 250-253.
Craig, Frank, Delineator, p. 35; Scribner's, p. 29.
Curt, Howard B., Delineator, p. 30.
Dabo, Leon, International Studio, pp. lvi-lxii.
Debillemont-Chardon, Gabrielle, International Studio, pp. 210-215.
Delaunay, Jules Elie, Century, frontispiece.
Duncan, Walter Jack, Scribner's, pp. 41-52.
Dwiggins, W. A , Printing Art, p. 245.
Elsley, Arthur J., St. Nicholas, pp. 201, 275
Enright, W. J., and Maginel Wright, Circle, pp. 26, 27.
Everett, W. H., Ladies' Home Journal, p. 15.
Everett, Walter, Ladies' Home Journal, p. 29.
Fenn, Harry, St. Nicholas, p. 257.
Flagg, James Montgomery, American Magazine, pp. 326-328; McClure's, pp. 300, 307.
Fogarty, Thomas, American Magazine, pp. 348-352; McClure's, pp. 266-275.
Gainsborough, Thomas, International Studio, p. lxxii.
Giorgione, International Studio, p. 231.
Groesbeck, Dan Sayre, American Magazine, pp. 418-424.
Gruger, F. R., Century, pp. 331-339.
Guerin, Jules, Century, pp. 422, 424.
Hals, Franz, International Studio, pp. 225-229.
Henkel, August, Circle, pp. 21-23.
Hitchcock, George, Ladies' Home Journal, cover.
Hobbema, Meindert, International Studio, p. lxxi.
Hoffbauer, Charles, Scribner's, frontispiece.
Jackson, John Edwin, Circle, pp. 9, 10.
Jacobs, W. L., St. Nicholas, frontispiece.
Keller, Arthur I., Century, p. 402; Delineator, p. 39; Ladies' Home Journal, p. 17.

Kemp, Oliver, Scribner's, pp. 117, 119.
Kleinschmidt, Carl, Delineator, cover.
Lester, Charles F., St. Nicholas, pp. 248, 249.
Leyendecker, Frank X., Century, pp. 444-448; McClure's, cover.
Leyendecker, Joseph C., Century, p. 457.
Masters, F. B., St. Nicholas, pp. 203, 204.
McCormick, Howard, American Magazine, cover.
Moylan, Paul J., Ladies' Home Journal, p. 12.
Mora, Luis, Craftsman, pp. 403-406.
Oberhardt, William, Delineator, p. 47; Outlook, pp. 923, 928.
O'Neill, Rose, Ladies' Home Journal, p. 27.
Preston, May Wilson, Scribner's, pp. 77-84.
Pyle, K., Circle, cover.
Ralph, Lester, Century, p. 432.
Relyea, C. M., St. Nicholas, pp. 218, 219.
Rembrandt, International Studio, pp. 230, lxxiii.
Repplier, Harriet, St. Nicholas, p. 254.
Robinson, Alexander, International Studio, pp. lxvii, lxix, lxx.
Rosemeyer, B. J., Ladies' Home Journal, p. 11
Rush, Olive, Ladies' Home Journal, p. 13.
Sangorski, F., International Studio, p. 221.
Schabelitz, R. F., American Magazine, pp. 317-323.
Scott, W. J., St. Nicholas, pp. 284, 285.
Sherrin, Daniel, Printing Art, p. 340.
Soper, J. H. Gardner, Delineator, p. 31.
Stearns, Fred, House Beautiful, cover.
Steele, Frederick Dorr, Delineator, pp 24, 35.
Storer Florence E., St. Nicholas, pp. 207, 208.
Sutcliffe, G., International Studio, p. 221.
Taylor, W. L., Ladies' Home Journal, p. 7.
Townsend, Harry, American Magazine, pp. 390, 392.
Turner, J. M. W., Practical Teacher, p. 363.
Varian, George, St. Nicholas, pp. 227-230.
Watson, Hy. S., Delineator, p. 43.
Watteau, Antoine, International Studio, p. 227.
Williams, J. A., Ladies' Home Journal, p. 16.
Williams, J. Scott, McClure's, pp. 316-322.
Wireman, Katharine R., Ladies' Home Journal, p 33.
Yohn, F. C., Scribner's, pp. 32-36

COLOR PLATES

Birds. color reproduction from a water-color drawing by C. A. Reed, from Nature Guides, Printing Art, p 356.
Cover design, Willard Bonte, St. Nicholas.
Cover design, George Hitchcock, Ladies' Home Journal.
Cover design, Carl Kleinschmidt, Delineator.
Cover design, Frank X. Leyendecker, McClure s.
Cover design, Howard McCormick, American Magazine.

Cover design, K. Pyle, Circle.
Cover design, Fred Stearns, House Beautiful.
Illuminated text designed and executed by F. Sangorski and G. Sutcliffe, International Studio p. 221
Lemonade Pitcher, Ione Wheeler, Keramic Studio, supplement.
"Parole Antiche," Emma Ciardi, International Studio, p. 195.
Persian Silk Rugs, from water-color drawings by Helen Floy Chamberlain, Century, pp. 341,353.
"Petite Kabyle" and "Petite Fille de l'Ile de Marken," Gabrielle Debillemont-Chardon, International Studio, p. 211.
Polish Silk Rug, from a water color drawing by Martha H. Cutler, Century, p. 349.
"Scene Pastorale," Antoine Watteau, International Studio, p. 227.
Sulgrave Manor, the cradle of the Washingtons, Daniel Sherrin, Printing Art, p. 340.
The Borderland, James Aumonier, International Studio, p. 183.
The Canterbury Pilgrims, from royal ms. in the British Museum (from English Literature), Printing Art, p. 344.
The Flight at Rheims during Aviation Week, Charles Hoffbauer, Scribner's, frontispiece.
Three-color illustration for Paris Modes, Monahan, Printing Art, frontispiece.
Water Lilies, James Aumonier, International Studio, frontispiece.

NOTABLE DESIGNS

Andirons and fireplace fittings, Craftsman, p. 457
Bishop's staff in carved ivory, International Studio, p. 224.
Book covers, International Studio, pp. 245, 246.
Book-plates (etched), International Studio, pp. 216-223.
Border design, Printing Art, p. 345.
Borders and initials, Delineator
Canterbury Cathedral, Craftsman, pp. 374-375.
China decoration, Keramic Studio, pp. 186-202, supplement.
Colonial doorways, House Beautiful, pp. 36, 37.
Colonial tables, International Studio, pp. 32, 34.
Dining table, Craftsman, pp. 452, 453.
Filet lace design in crochet, Ladies' Home Journal, p. 51
Fountain in glazed crystal, International Studio, p. 242.
Hall mirror, Craftsman, p. 456.
Hall seat, Craftsman, p. 454.
Hood for fireplace, p. 455.
Illuminated text, International Studio, p. 221.
Irish crochet edges, Delineator, p. 66.
Lace, Craftsman, p. 448; Ladies' Home Journal, p. 52.
Late XVII-century furniture, House Beautiful, pp. 29, 30
Rugs, Century, pp. 341, 349; House Beautiful, pp. 38-40.
Rush holders, Circle, p. 42.
Text borders, McClure's, pp. 250, 251.
Tiles, Keramic Studio, p. 197
Tobys, House Beautiful, pp. xii, xiv.
Typeset book ornaments, Printing Art, pp. 334-337.
Wood carving, Circle, p. 49

THE SCHOOL ARTS GUILD

I WILL TRY TO MAKE THIS PIECE of WORK MY BEST

DECEMBER CONTEST—AWARDS

First Prize, Book, a "School Arts Kit," and Badge with gold decoration.

*Daniel de Grasse, VIII, Far Rockaway, N. Y.

Second Prize, a box of Munsell Colors, Wadsworth, Howland Co., and Badge with silver decoration.

Louis Baldwin, VII, 231 E. Flora St.. Stockton, Cal.
*Alston Blackler, VIII, Pleasant St. School, Westerly, R. I.
Ernest Brown, V, 811 W. 15th St., Sioux City, Ia.
Carl A. Burdick, VIII, Avondale School, Westerly, R. I
Ernest Mellow, VI, Westerly, R. I.

Third Prize, a copy of "Blackboard Drawing," published by The Davis Press, and Badge.

Albert Anderson, IV, 1801 Rockefeller Ave., Everett, Wash.
Fritz Beck, VII, 524 W. Acacia St., Stockton, Cal.
Elsie Brevik, VII, 312 Helmer St., Sioux City, Ia.
*Mary Gomena, IV, Quarry Hill School, Westerly, R. I.
*Dorothy Greenman, VI, Pleasant St. School, Westerly, R. I
Helen Herrieff, VI, Academy St. School, Oneonta, N. Y.
Karle Lund, VII, Everett, Wash.
Ethel Potter, V, Pleasant St. School, Westerly, R. I.
Allan Stebbins, IX, 215 E. 14th St., Davenport, Ia.
Fannie Wright, II, Middlefield, Mass.

Fourth Prize, the Badge.

Ruth Bury, VIII, Everett, Wash.
William Carnaghan, II, Avondale School, Westerly, R. I.
Elsie Cook, II, 4314 Harrison Ave., Sioux City, Ia.
Dell Drake, V, 921 W. Third St., Sioux City. Ia
Gertrude Dunn, V, East District School, Rockville, Conn.
Alice Fleming, II, 2018 Rebecca St., Sioux City, Ia
Willie Hale, III, 619 W. 4th St., Davenport, Ia.
Hannah Harris, IV, Wilkes-Barre, Pa.
Mervar Kennedy, I, 908 Fairmont St., Sioux City, Ia.
Joseph Kuhnen, VIII, 1630 Washington St., Davenport, Ia
Yvonne Langlois, VI, Dominican Academy, Fall River, Mass
Olive Matheny, VI, Everett, Wash.
Edward Mattis, I, Avondale School, Westerly, R. I.
Lois Miles, V, Everett, Wash.
Ida Moir, 415 Bluff St., Sioux City, Ia.
Gilbert Pyle, VIII, Monroe School, Everett, Wash.

*A winner of prizes in some previous contest.

William Reutter, VII, 139 E. 8th St., Brooklyn, N. Y.
Russel Sabins, I, Chamber of Commerce, Everett, Wash.
Vera Stuehmer, IX, 1632 Harrison St., Davenport, Ia.
N. B S., VII, East District School, Rockville, Conn.
Ray Ten Broeck, Academy St. School, Oneonta, N. Y.
Helen J Woodsom, VI,———
Ella ———, I, East District School, Rockville, Conn.
Harry ———, II, East District School, Rockville, Conn.

Honorable Mention

Mandus Aagaard, Everett
Beulah Allen, Davenport
Robert D Allen,———
Helen Bahnmiller, Wilkes-Barre
Pearl Boothman, Westerly
Marguerite Clark, Fall River
Stanley Cobton, Avalon
Leopoldine Collet, Fall River
Goldie Cook, Sioux City
Elmer Davis, Rockville
Mona Dillen, Clearfield
Vera Eisentraut, Sioux City
*Jennie Ferare, Westerly
Ralph W. Franklin, Urbana
Elsie Friche, Sioux City
Ethel Gilmore, Stockton
Lillie Goldthorpe, Everett
Fred Gutsche, Everett
Olga Hansen, Everett
Roger Hardy, Everett
Ella Heffron, Davenport
Richard J. Hoyt, Candor
Ama Ingham, Everett
Samuel Kan, Everett
Harriet Lanphear, Westerly
*Thomas Lavelle, Wilkes-Barre
Abraham Levich, Sioux City
Emilie Litze, Rockville
Frances Martin, Sioux City
Alma Melby, Everett
Albert Miehlke, Westerly
*Margaret Morenzoni, Westerly
*Abbie Pember, Westerly
D——— P———, Everett
*Lorena Randall, Westerly
Angelo Ratto, Stockton
Mary Rice, Sioux City
*Sybil E. Robbins, Charlton
George Sanderson, Stockton
Elizabeth Sconce, Stockton
Ethel Sruttemeyer, Rockville
Fern Tozier, Sioux City
*Gustav Vehn, Stockton
Irving Watts, Sioux City
Hugo Weidenpesch, Davenport
Lucy E. Weston, Sioux City
Elsie ———, Rockville
Mahlon ———, Rockville
Marcella, Stockton

Special Prize.

The Badge.

Edna M. Howard, High School, Candor, N. Y.
Mabel Lull, High School, Oneonta, N. Y.

The work submitted evinced greater originality than usual. Some of the modifications of problems given in The School Arts Book were especially happy. The technique improves gradually from year to year, partly on account of the greater variety of better material available for school work. An increas-

*A winner of honors in some previous contest.

ing delight in school work is revealed in the fact that almost all the work submitted was duplicate work. The originals were so highly prized by the little craftsmen that they were retained for Christmas gifts at home. The children readily duplicated them, however, for the contest. When children take such delight in their work that all they need is an opportunity to repeat it, they are beginning to participate in the joy of craftsmanship.

Please remember the regulations, etc.

Pupils whose names have appeared in The School Arts Book as having received an award, must place on the face of every sheet submitted thereafter a G, for (Guild) with characters enclosed to indicate the highest award received, and the year it was received, as follows:

These mean, taken in order from left to right, Received First Prize in 1905; Second Prize in 1906; Third Prize in 1907; Fourth Prize in 1906; Mention in 1907. For example, if John Jones receives an Honorable Mention, thereafter he puts M and the year, in a G on the face of his next drawing submitted. If on that drawing he gets a Fourth Prize, upon the next drawing he sends in he must put a 4 and the date, and so on. If he should receive a Mention after having won a Second Prize, he will write 2 and the date on his later drawings, for that is the highest award he has received.

☞Those who have received a prize may be awarded an honorable mention if their latest work is as good as that upon which the award is made, but no other prize unless the latest work is better than that previously submitted

☞The jury is always glad to find special work included, such as language papers upon subjects appropriate to the month, home work by children of talent, examples of handicraft, etc.

☞Remember to have full name and mailing address written on the back of each sheet. Send drawings flat.

☞If stamps do not accompany the drawings you send, do not expect to obtain the drawings by writing for them a month later. Drawings not accompanied by return postage are destroyed immediately after the awards are made.

☞A blue cross on a returned drawing means "It might be worse!" A blue star, fair; a red star, good; and two red stars,—well, sheets with two or three are usually the sheets that win prizes and become the property of the Davis Press.

The School Arts Book

AN ILLUSTRATED MONTHLY MAGAZINE for THOSE INTERESTED IN DRAWING *and the* ALLIED ARTS

HENRY TURNER BAILEY
EDITOR

September to June inclusive $1.50 a year, in advance

VOL. IX MARCH, 1910 NO. 7

Entered at the Post Office at Worcester, Mass., as second class matter, August 17, 1903

CONTENTS

Civic Pride in Public Schools — D. Berkeley Updike
Bird Study in Schools — B. S. Bowdish
Perspective — Floy Campbell
Color, II—Color Formulas — Louis W. Wilson
Chuigi and His Stencils — Walter J. Kenyon
Ten Great Paintings, VI—The Assumption — Henry Turner Bailey
Annotated Outlines, April, with Illustrations, Reference Material
The Workshop—Woodworking—A Dutch Wind-Mill and Weather Vane — Frank G. Sanford
Weaving—Marble Bag — Katharine F. Steiger
Needlework—Highland Costume — Blanche E. Hyde
Metalry—Match Box — Augustus F. Rose
Reference Material
Editorial: Decorative Chapter Headings, Notes — Editor
Helpful Correspondence School Arts Guild The Arts Library
Reliable Advertisements Trade News

Published by THE DAVIS PRESS, Worcester, Mass.

COPYRIGHT, 1910, BY THE DAVIS PRESS. ALL RIGHTS RESERVED.

BULLETIN

The Outdoor Number will bring to its readers not only good reading but good drawing, appropriate to the season and usable in school work. Manual Arts in the Open Air in Europe by Ida Hood Clark of Milwaukee; Manual Arts at Chautauqua by George William Eggers of Chicago; The Making of Garden Furniture, by Charles T. Scott of Philadelphia; Brief articles on bringing the Spring into the Schoolroom; Japanese stencil designs, and other decorative elements by American designers;—these will appear in April.

EASTER WORK

appropriate to the public school, accompanied by descriptions and drawings suitable for publication in The School Arts Book will be welcomed by the Editor and, if available, paid for by the publishers. Send all such matter to North Scituate, Mass.

The School Arts Book

Vol. IX MARCH, 1910 No. 7

CIVIC PRIDE IN PUBLIC SCHOOLS*

NORTH KINGSTOWN is fortunate in its neighbourhood, which produced some celebrated men, and had intimate associations with others; for the town was not only the birthplace of Gilbert Stuart, the painter, but was the early dwelling-place of Roger Williams, was visited by Berkeley, Franklin and Lafayette, and in its surrounding towns General Nathanael Greene, Commodore Oliver Hazard Perry and Commodore Matthew Calbraith Perry were born. Worthies like Richard Smith, the first settler of Narragansett, Mrs. Elizabeth Winthrop, who gave Wickford its name, good Dr. MacSparran, and, in later days, Wilkins Updike, historian of the Narragansett country, are also of local historical importance. It is to commemorate these men, and to remind the rising generation of the lives and work of those who were once "children of the neighbourhood," that the decoration for the School here outlined, has been carried out.

THE SMITH-UPDIKE ROOM

Beginning at the right of the bookcase, over which is an inscription, is a series of twelve prints, beautifully coloured by hand, of American birds from the famous folio edition of "Birds of America" by the naturalist, John J. Audubon. The names of the various birds represented (some of them of the locality) are lettered on the engravings. At the end of the room, behind the teacher's desk, are casts of the Madonna and Holy Child after Maiano, an Italian Renaissance sculptor; of Saint John Baptist, and the boy Tobit, after

*This may not be the best title for that which follows, but it will serve to focus attention upon the unique features in the decoration of the school buildings in North Kingstown, Rhode Island, carried out under the inspiration and direction of Mr. Daniel Berkeley Updike, founder of the famous Merrymount Press of Boston. The Updike family has been connected with the village of Wickford, North Kingstown, since its settlement early in the seventeenth century, and from that time successive generations of the family have been interested in its welfare. Mr. Updike, for some years, has given prizes in the schools.

Donatello; and on the side of the room facing the windows, figures of children in swathing-bands, after two of the series of "Bambini," by Lucca della Robbia, on the front of the Foundling Hospital in Florence; and Cherubs playing on violin and mandolin, after Donatello.

This room is occupied by the youngest children of the School, and the treatment adopted has purposely been made as bright and attractive as possible. The inscription in this room is as follows:

The Smith-Updike Room. In Memory of Richard Smith, Senior, First English Settler of the Narragansett Country, c. 1637. Born in Gloucestershire, England, c. 1596. Died in Narragansett, New England, 1666.

And of his descendant, Wilkins Updike, Historian of the Narragansett Country. Born at Smith's Castle, Wickford, 1784. Died in Kingston, 1867.

Wilkins Updike's efforts, in conjunction with Henry Barnard, Commissioner of Education, in behalf of a better Public School system in Rhode Island will be remembered by an older generation.

THE ROGER WILLIAMS ROOM

The Roger Williams Room. In Honour of the Founder of the State of Rhode Island, Roger Williams, one of the Earliest Proprietors of Land in this Town. Born in Wales, c. 1599. Died in Rhode Island, 1683.

Roger Williams, at one time a landowner in Wickford, eventually sold his holdings to Richard Smith, at whose estate, however, for many years, he preached to the Indians.

This room is now without decoration. It is proposed to devote it to coloured pictures and casts of animals, Indians, &c.; and coloured views of American scenery,—such as Niagara, the Yosemite Valley, &c. These are appropriate to this particular room, which is for younger children.

THE BERKELEY ROOM [Grammar School]

The room is named in honour of the visit of George Berkeley, D. D., to Narragansett in the eighteenth century. It is inscribed as follows:

The Berkeley Room. In Honour of the visit to Narragansett in the Year 1729 of George Berkeley, D. D., Philosopher and Divine, whose Pre-eminence in the Realms of Higher Speculation was equalled only by his Virtues as a Man. Born near Kilkenny, Ireland, 1684. Died in Oxford, England, 1753. "To Berkeley every Virtue under Heaven." [Pope.]

This room, it is hoped, may be eventually devoted to portraits of famous men and women and views of American historic localities.

THE NATHANAEL GREENE ROOM [Grammar School]

The room is named after General Greene. The pictures, busts, etc., in this room have to do with General Greene, the war of the Revolution and other military subjects. To the right of the inscription is a bust of Caesar, from the original in the British Museum; in the corner, an engraving of Washington by Marshall after Stuart's portrait. Beyond the door is a document signed by Napoleon Bonaparte as First Consul, ordering a rifle to be given to a French soldier as a reward of honour for his bravery at the battle of Marengo. This valuable paper is surmounted by a head of Napoleon by Isabey, engraved by Tardieu. Next comes an etching signed by Jules Jacquet, of Meissonier's famous "Waterloo," showing Napoleon watching the progress of the engagement. Beyond this is an autograph of the Duke of Wellington, in the same frame with a curious lithograph of the "Iron Duke" on horseback, taken in later life. Beyond the second door is a coloured print of the Marquis de Lafayette, on the margin of which are portraits of Washington and Franklin. Beginning the next wall, is an old engraving of Trumbull's picture "The Battle of Bunker Hill." Next comes a bust of Washington after the French sculptor Houdon, and beyond it a photogravure of the picture by Gow of "Washington taking Leave of his Generals" (the key on the margin giving the names of all of these, General Greene being the sixth figure to the left of Washington). A bust of Lafayette, also after Houdon, and Trumbull's companion picture to the "Bunker Hill," "The Death of Montgomery at Quebec," completes this wall. At its angle is an engraving of Durand's "Capture of Major André." In the northeast corner of the room is a photograph of General Greene, enlarged from a miniature.

On the same wall with the inscription is another photograph of Peale's portrait of General Greene. Next to it is an engraving of Trumbull's well-known picture of "The Signing of the Declaration of Independence, July 4, 1776" (the key on the margin showing the persons represented). Completing the circuit of the room is a reproduction of Gari Melcher's portrait of General Greene, lately painted for the State House in Providence. The inscription in this room is as follows:

The Greene Room. In Honour of Nathanael Greene, General in the Revolutionary Army. Born at Potowomut, near East Greenwich, 1742. Died near Savannah, Georgia, 1786.

HALLWAYS

In the lower hallway may be noticed portraits of Lincoln and General Grant, engraved by Marshall. Over the two drinking-fountains are

medallions of children's heads framed in fruit and flowers, after Lucca della Robbia.

THE HIGH SCHOOL

The landing of the western staircase of the High School (the Boys' side of the School) is decorated by a bust of the Hermes of Praxiteles from the statue at Olympia. The walls of both the staircases are hung with old engravings.

FRANKLIN LABORATORY

The inscription is as follows:

The Franklin Laboratory. In Honour of Benjamin Franklin, an occasional visitor to this Town. Born in Boston, 1706. Died in Philadelphia, 1790.

This room is not yet decorated. Busts of Locke, Newton and Franklin are needed for it, and pictures of scenes in the life of Franklin, and portraits of scientific men. It contains, however, two interesting autograph letters,—one of Alexander von Humboldt, the naturalist, the other of Sir William Herschel, the astronomer. Both are framed and accompanied by portraits.

THE WINTHROP ROOM

Beyond the Franklin Room is the Winthrop Room. This is hung with views of English historical localities, portraits of British authors, etc.

The inscription is as follows:

The Winthrop Room. In Honour of Elizabeth Read Winthrop (born 1614), second wife of John Winthrop, Junior, Governor of Connecticut. She gave Wickford its name, in remembrance of her English birthplace, Wickford in Essex.

Mrs. Winthrop was the daughter of Edmund Read of Wickford, Essex.

THE PERRY ROOM

Beyond the Winthrop Room is the Perry Room, commemorating the two famous Commodores. The pictures, etc., in this room concern the lives of the Perrys, or represent naval engagements, famous commanders, etc.

The inscription is as follows:

The Perry Room. In Honour of two renowned Brothers, Commodore Oliver Hazard Perry, born in South Kingstown, 1785, died in Trinidad, 1810; Commodore Matthew Calbraith Perry, born in Newport, 1794, died in New York, 1858.

THE GILBERT STUART ROOM

The Gilbert Stuart Room. In Honour of Gilbert Stuart, Painter. Born in this Town, 1755. Died in Boston, 1828.

It is earnestly requested that all friends of the School who have engravings of portraits by Stuart, or photographs of such portraits, will contribute them to this room, to be placed in a portfolio.

THE WASHINGTON ACADEMY ASSEMBLY HALL

At the west end of the hall behind the Master's desk is a series of casts from the western frieze of the Parthenon at Athens, from the originals in the British Museum, London. Continuing to the right, the wall decoration consists of a series of busts after the antique, and views of early Roman antiquities by Piranesi. The entire east wall is adorned with casts from the northern frieze of the Parthenon. On the west wall is an excellent portrait of Washington, after Stuart, given to the School in 1908 by the Washington Lodge of Masons of Wickford, and until the present decorations were put up, almost its only ornament. The inscription in this room reads:

The Washington Academy Assembly Hall. Washington Academy was founded on this spot in the Year 1800, through the Instrumentality of William Ellery, Samuel Elam, John Innes Clark, Ann Allen, D. Vinton, George Benson, Thomas Lloyd Halsey, Daniel Eldred Updike, Jabez Bowen, George Gibbs, Christopher Champlin, Benjamin Gardiner, Stephen DeBlois, Francis Brinley, and Others, for the Education of the Youth of Rhode Island.

At the top of this inscription and below the frieze runs this quotation: "Nothing makes the soul so religious and pure as the endeavour to create something perfect; for God is perfection and whoever strives after it, is striving after something divine." This is attributed to Michelangelo.

On the right of the Master's desk is a door leading to the Headmaster's Room. On the wall facing the door is a print by Piranesi of Trajan's Column. An interesting autograph letter from William Ellery, signer of the Declaration of Independence from Rhode Island, to Daniel Eldred Updike, refers to the old Washington Academy.

In this work, hearty co-operation was given by the Superintendent of Schools, and by the Headmaster, and a Committee of three on behalf of the School. (This Committee is permanent and will pass on gifts offered to the School in the future.) The lettering of the inscriptions is the work of Mr. W. A. Dwiggins of Hingham, Mass.

It should be said that as far as possible engravings have been selected for use, and not photographs. This is because the engravings are not only more decorative when placed on the walls, but more permanent than any photographs can be. In the few cases where photographs are largely used, as in the Winthrop Room, carbon prints have been selected as the only ones which will probably stand the test of time.

Much has been done through the co-operation of friends of the High School, in Wickford and throughout and beyond the State. Much remains to be done; and the adornment of the remaining rooms is confided to the care and interest of the citizens of North Kingstown and the Pupils of the School. To the last it already owes three beautiful gifts. Year by year it is hoped that this little collection will grow, and become more and more stimulating to the young people of the town, who should learn from the examples of the men and women whose names are here commemorated that, "citizens of no mean city," they can, if they will, reflect lustre on their birthplace. For to instill this idea—this ambition—is the motive for the work which has been done here. May the End crown the Work!*

*Selections from a circular entitled, "Notes on the Decorations in the Primary and Grammar School, and High School, at Wickford, North Kingstown, Rhode Island, MDCCCCIX," by Mr. Daniel Berkeley Updike, Boston. Here reprinted in part, with his kind permission.

BIRD STUDY IN SCHOOLS

A chickadee extracting suet from the bark of a tree.

NEARLY all species of birds are beneficial to man. Lack of knowledge of this value in the past has resulted in wanton destruction, and a lessening of the numbers of many desirable species. It should now be our aim as far as possible to correct these mistakes of the past; to teach the coming generation the true relation of birds to man, and to restore as far as may be the numbers of those birds whose ranks have been reduced. Both these results are advanced when boys are taught to encourage and protect birds about their homes and to observe the habits of these feathered benefactors. Incidentally the boys will be better men for having learned to conserve instead of to destroy, and for having acquired knowledge of some of nature's ways, while mankind will be better off by the replenishing of beneficial creatures and the establishing of friendly relations with them.

Two ways are readily open to any boy to encourage birds about his home; the providing of nesting sites and of feeding and drinking places. Nesting places for robins, catbirds, wood thrushes, brown thrashers, song sparrows and chipping sparrows and other common birds imply trees and shrubbery. If these are not already at hand about the boy's home he can usually obtain ready consent to set them out, when the purpose is explained.

Bluebirds, house wrens, tree swallows and purple martins readily nest in boxes provided for them, and occasionally crested flycatchers, tufted titmice, chickadees and nuthatchers do so. Wrens will occupy almost any shelter that is placed for them; any plain little box with an entrance hole; an old tin can or teapot, or a gourd, hollowed out and having an entrance hole.

Bluebirds are sometimes a little more particular. Martins will often occupy the gourds or little simple single boxes, but as they love to nest in colonies some of the most successful efforts to attract them about a place result from putting up one of the elaborate, many roomed houses on a tall pole. Occasionally one finds in the woods some piece of limb containing an old knothole or woodpecker excavation. This furnishes an excellent natural nesting site for bluebirds and other feathered tenants.

Pattern and gauge for excavating a natural nest box.

In Europe some success has been attained in getting woodpeckers to occupy artificial nesting hollows that closely imitate those that the birds excavate, even to shape and dimensions. A little observation regarding the nest cavities that the birds provide for themselves, and the positions they select will be a great aid in preparing and placing the artificial ones. A German firm makes a specialty of manufacturing these careful copies of natural woodpecker nest excavations, with elaborate machinery, but any handy boy can make them. A limb or small tree trunk some six inches in diameter is selected and a section is cut about sixteen inches in length. About two inches from one end a hole is bored into the section, at right angles to it, and about half way thru. The section is then split in halves, leaving the hole in the middle of one half. A pattern having been made from cardboard, together with a double card gauge as shown in illustration. The two half sections are marked by the pattern, so that when gouged out and put together the hollow in one will correspond to that in the other, and an imitation of a woodpecker excavation will result. The gauge is used to test the correct depth of the gouging in each half, which grades

regularly from the neck of the excavation at the entrance hole to the largest diameter of the excavation, near the bottom. See a, Plate I. The two halves are then firmly nailed together, a piece of board is nailed on the top, a strip a little longer than

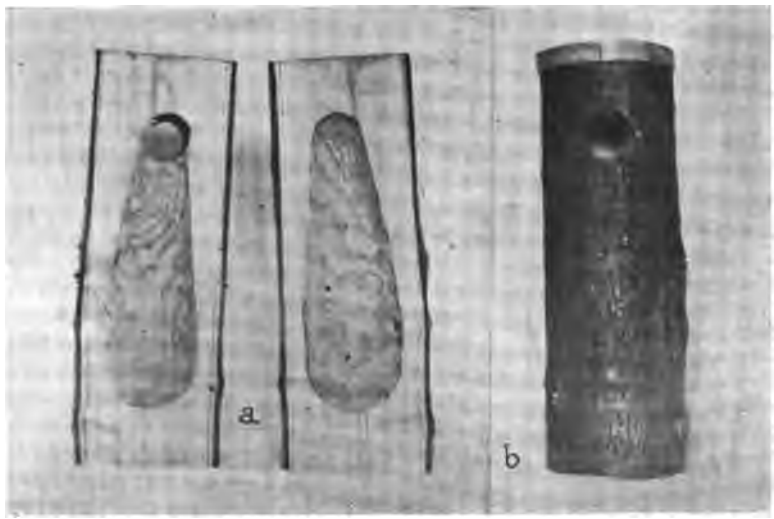


Plate I. a. Two halves of a natural nest box. b. The box completed.

the section is nailed to the back, its ends furnishing the means for fastening the nest box to a tree trunk, and the box, b, is ready to be placed where desired. Such a nest box would be suitable for the hairy and downy woodpeckers, crested flycatcher and bluebird. It might be occupied by house wrens or chickadees, altho these prefer smaller excavations and entrance holes. Various sizes, to suit the requirements of the proposed tenants, may be made. This sort of box should be placed at the height of from fifteen feet up for woodpeckers, and from eight feet up for others.

One of the simplest forms of boxes to make is that shown in the illustration, made of two bits of board and four shingles. This is a good one for bluebirds and wrens; the illustration needs no further explanation. Most of the illustrations on Plates II, III and IV,* show the manner of making the various styles of boxes so well that a description is not needed.

A bird box made of four shingles and two bits of board. (By permission of E. H. Forbush.)

In making bird boxes, it is well to bear in mind that plain, weather-stained boards are better than new or painted ones, and that an excavation in a branch is apt to appeal still more strongly to the birds.

Two enemies of our bird tenants need to be guarded against: the common house cat, and the English sparrow. If a piece of tin is nailed about the post or tree that supports the box, like an inverted funnel, as shown in Figure 7, Plate III, it will prevent cats from climbing to the box.

No absolutely satisfactory way has been devised for coping with the English sparrow. Poison is altogether too dangerous a method; shooting should only be resorted to when one is confident of his ability to positively distinguish between the imported bird and native species. It is best in shooting to use a 22 calibre rifle and C. B. caps. With this outfit the writer has shot an English sparrow from the same branch on which a native bird was sitting without even causing the latter to leave. By removing all nests of the sparrow and absolutely preventing it from breeding, the evil may be largely mitigated.

*Reproduced from Teacher's Leaflet No. 10 of the College of Agriculture, Cornell University, by permission of Mrs. Anna Botsford Comstock and the Secretary, Mr. G. N Lauman.

FIG. 1.

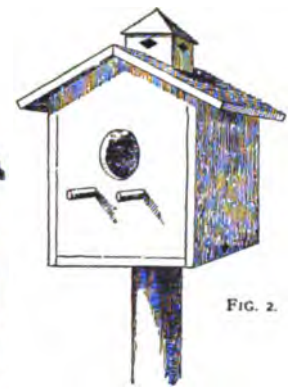


FIG. 2.

FIG. 3.

FIG. 4.

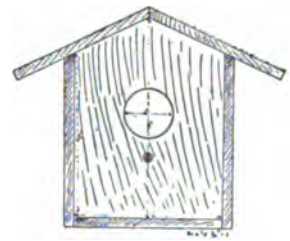


FIG 5

Plate II. Fig. 1. Box for bluebird or similar bird, made out of a grocery box with a bark cover. Figs. 2, 3, and 4. Boxes suitable for bluebirds, house wrens, tree swallows, or possibly a single pair of martins. These are easily made of light wood, or a box can be cut down and fitted with a roof. Fig. 5. Section of one of the last three boxes.

FIG. 6.

FIG. 9.

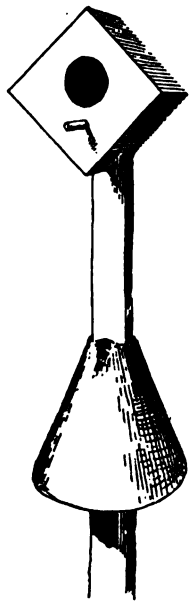


FIG. 7.

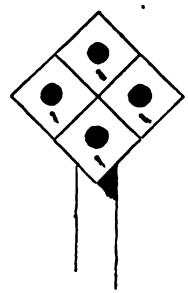


FIG. 8.

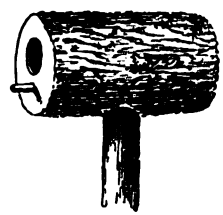


FIG. 11.

FIG, 10

FIG 12.

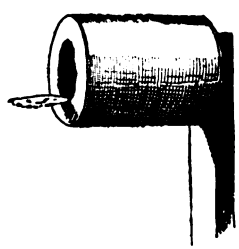


FIG. 13.

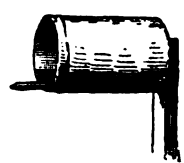


FIG. 14.

Plate III. Figs. 6, 7, and 8. Boxes set diagonally, one corner up, forming a simple way of shedding rain; Fig. 8 divided into four compartments, each with an entrance. Fig. 7 shows funnel-shaped tin on post to stop cats. Fig. 9. A half-section of a box cut in two diagonally, or can be made from light wood. Fig. 10. Section of Fig. 9. Figs. 11 and 12 made by carefully removing the bark from a section of limb and tacking it on to ends cut from board. Figs. 13 and 14. Wren houses made from old tin cans.

A small hollow, scooped in the ground and lined with cement forms an easily constructed receptacle for water for the birds to drink and bathe in. If a tiny fountain can be arranged for the center of the basin, so much the better.

Sometimes birds patronize thruout the summer, feeding places that are established for them about one's home; the time, however, when these places are most appreciated by the birds is in the winter, especially during heavy snow, when the natural supply of food is largely cut off. The primitive and most simple method of providing for the needs of birds consisted in scattering crumbs on the porch or other sheltered spot, rubbing suet into crevices of bark (see the initial) and tying or nailing pieces of the same or a scrap of meat onto trunks and limbs of trees. From these first methods have been developed quite elaborate window shelves varying in design according to the fancy of the user. A very satisfactory one may be made in this fashion: take a piece of board (or several, cleated together) the length of your window sill or less, if you prefer, and ten or twelve inches wide. It is well to have cleats on the underside of each end to prevent warping. This is nailed to the window sill and further supported by strips nailed in the position of brackets. On one end of this a receptacle is placed to hold food. This receptacle is made of light wood and in the shape of a small trough, into which a flaring hopper, widest at the top and narrowest at the bottom, automatically feeds its contents as the food is taken from the trough by the birds. The hopper is provided with a sloping cover at the top, for replenishing the food as needed. See Plate V. This food is selected according to the judgment of the birds' host. Personally the writer has used the following combination with very good satisfaction: a piece of scrap beef and some bits of dry bread are run thru a meat grinder so as to mix them well, and in a proportion that will

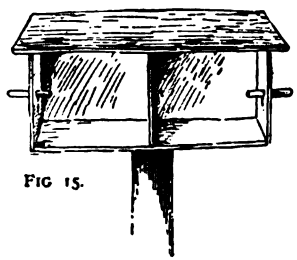


FIG 15.

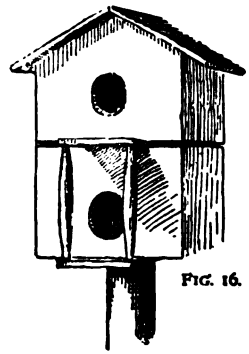


FIG. 16.

FIG. 17

FIG. 18.

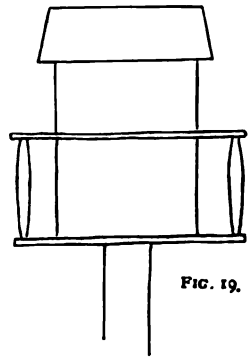


FIG. 19.

Plate IV. Suggestions in bird house design. Various kinds of perches suggested with reference to doorways.

not be sticky, but will work readily thru the hopper into the trough. To this combination is added the ordinary mixed bird seed, commonly used for canaries, omitting the rape seed, which the writer has not found that the birds eat at all well;

Plate V. Juncoes and purple finches on a feeding shelf with feed hopper and food mine. Photographed from life, by the author.

also a small proportion of sunflower seed, which is the only thing that brought the purple finches to the writer's shelf, and which may induce other birds to come. A greater attraction is given to this shelf by adding a section of a branch of tree about two inches in diameter and twelve inches in length; bore several good sized augur holes half way thru this, fill them with broken bits of nut meat and pour in melted suet which is allowed to harden. This holds the nuts in place till the birds extract them, and provides the birds with a little clear suet if they wish it.

A small board is tacked to one end of the stick as a base, and by means of this the stick is fastened onto the shelf. Various similar devices are often fastened in trees about one's place, or on poles.

The work described has been taken up to a certain extent in some schools with good results. Manual training classes

Plate VI. A manual training class at work on bird houses, Public Schools, Portland, Oregon. Photograph by H. T. Bohlman.

working on bird boxes in public schools in Portland, Oregon, are shown in Plate VI. Work of this kind teaches the use of tools, affords an attractive form of designing, helps in the conservation of a valuable public asset, promotes observation of nature, and the humane treatment of the lower creatures, and finally, and by no means the least, furnishes to all concerned a pleasure that is healthy, both physically and mentally, and only beneficial to all mankind.

B. S. BOWDISH
Special Inspector of Wild Birds and Animals
United States Department of Agriculture
New York City

PERSPECTIVE

NO child should take up the study of perspective without having a certain maturity of mind, and some little preparation for the work thru careful still life drawing, wherein books, tables, chairs, and such common objects, play a prominent part. That is, I believe, everywhere conceded. Granted a child of fifteen or sixteen, then, with the necessary training in object drawing, and we have to make the subject of perspective illuminating, interesting, absorbing. There is no reason why it should be anything else than a revelation and a delight, from the first line drawn to the last picture composition, landscape sketch, or water color interior. Having taught the subject ten years, I know how generally it is hated, and how enthusiastically it may be enjoyed; and I propose to suggest as well as I can in the limit of a few pages the means I have taken to bring about the latter result.

An empty chalk box, which, with the lid off, forms a miniature room, and which the fancy can readily transform into a table, a chair, a house, a wagon, or any other of the dissimilar objects with which we are wont to demonstrate the first principles of perspective, is the sole equipment absolutely necessary. I always find valuable aid in a sheet of glass, upright, with a "point of sight" in the shape of a peep-hole about a foot away from it; and a glass-pencil with which to trace the outline of any particularly puzzling form, and convince the skeptic of the class of any statement his eyes will not corroborate. It is not essential, though. Any ready-witted teacher can make of the chalk box a true magician's cabinet, and draw from it all the rules of the game, and the farther fact that all the things commonly drawn in perspective are based on the box-form.

After this preliminary work, begins the first fun, and the first hard work, in a very simple-seeming exercise. We pose two equally tall models, one five feet or so behind the other, and note the difference in their apparent height. (See Figure 1.)

Then we imagine a man just as high as ourselves, his head, therefore, on our horizon, and we walk him away from us along a straight line until he becomes a mere dot, disappearing in the distance. We "pretend" that the sun casts a shadow of him along the ground, just as long as he is high, and parallel to the picture line, and we draw that shadow also. (See Figure 2.) For most of us, the man and the shadow will both be about five feet high, as will our horizon when we stand; and by multiplying his height, or the length of his shadow, at any point in the picture, we can estimate with sufficient accuracy for our purposes the length of any line parallel to the picture plane. Unless we teach some complicated method of projection, there seems no equally good way of measuring "distance into" the picture, along retreating lines or surfaces. The best device I have found is, to draw a plan of the intended picture, make a dot where I mean to stand, and draw lines, converging at my station point, from all the points I wish to locate. Where these lines cut the picture plane, gives, in a rude and inaccurate, but sometimes useful way, the relative width of retreating surfaces. I have usually found it better, however, to say simply, "Look at some similar object near you; observe its retreating sides carefully; and use

Fig. 1. Pen sketch from life, by a high school pupil. Horizon 3 1-2 feet above the floor, girls 5 feet high.

your judgment." Where the student is of too inquiring a mind to find this sufficient, a teacher should be prepared to explain, as simply as possible, the laws on which the science of perspective is based, and to give some accurate architectural method of working out a drawing from a plan, to a scale.

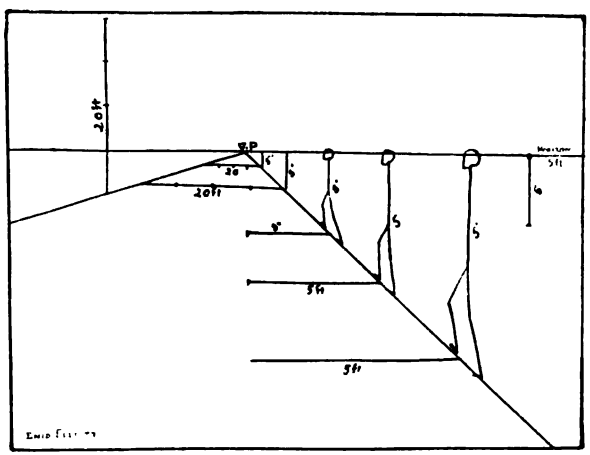


Fig. 2. Method of measuring objects in the picture.

The average child will not, however, demand any such information, and is not, in his second, or even in his third year in High school, mature enough to get a grip on it, if it is offered, that will make it available for actual everyday work. For him, such teaching is stultifying. He will gain much more by a looser method, wherein perspective is made a hook on which to hang all his legitimate drawing interests.

Having become familiar with the idea of estimating height at any point in the picture, we take a stated horizon, draw boxes of various sizes, appropriate to their intended use, add roofs

when necessary, turning them into barns, houses, dog-houses, bird-houses, on high poles, or what-not. The addition of a tree or two, a fence, and, if you are very ambitious, of a few animals, completes a very effective barnyard scene; and if you will commit

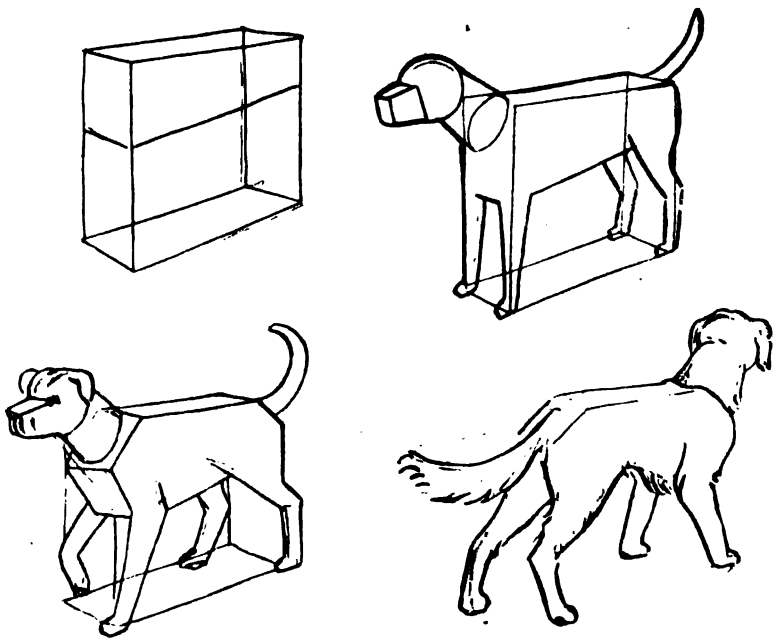


Fig. 2. Four dogs built on the same foundation.

the absurdity of having the pupils draw a dog "in perspective," I can assure you, and them, a most hilarious and instructive time. It isn't as silly as it sounds. Take a block of wood, on paper, and hew out a horse, a dog, or a man, sitting or standing. It will give you some valuable hints about "blocking in" your sketches from nature. (See Figure 3.)

This introduces "illustration," which every child loves, from the kindergarten, up. It may be followed by "The Old Oaken Bucket," "The Deserted Village," "The Legend of Sleepy Hollow," or anything the children happen to be studying in

Fig. 4. Perspective composition by a high school pupil. Subject, Evening; problem, house 13 feet high, fence 3 feet high, boy 4 feet high, man 6 feet high, dog in proportion, row of trees 15 feet high, bush 10 feet high.

their English classes, which presents some word picture that you can make into a perspective problem. If, by rare ill chance, there is no available material of that kind, they may be given a subject like "Reading," "Washing Dishes," etc. These drawings may be made most attractive by using chalk and pencil on gray paper. (See Figure 4.)

From the beginning of this picture work, the class should study such photographs as Millet's "Feeding Her Birds," "Woman and Chickens," Puvis de Chavannes' "St. Genevieve," Carpaccio's "Dream of St. Ursula," Da Vinci's "Last Supper." The use of

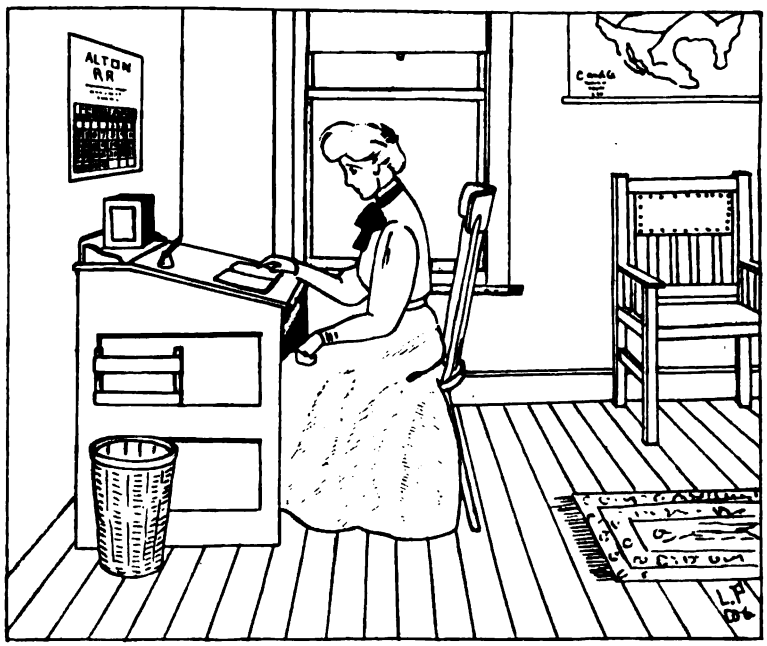


Fig. 5. Sketch from life with accessories arranged by the pupil.

the horizontal and vertical lines to form simple and beautiful patterns (particularly in the Carpaccio and the Puvis de Chavannes) and the value of converging lines, leading the eye toward the point of interest, should be carefully noted. The effect will be easily seen in the work that follows.

I have spoken of this "illustrative" work as if it were entirely from memory and imagination. I believe, however, that better results, and greater interest, are often obtained, by posing the model, drawing her, part of the background, and part of the

Fig. 6. An original perspective composition, subject, Reading; details determined by the pupil.

accessories, from nature, and adding the details necessary to good composition, and an effective telling of the story. This, too, gives practice in finding actual vanishing points for an actual scene, and in measuring retreating surfaces; practice that prevents the two ill habits of placing vanishing points too close together, in making a drawing from imagination, and of making retreating surfaces too broad. It helps, also, to keep close to the pupil the

conviction that he is reporting actual appearances, not drawing a thing in "Perspective" according to a cut and dried recipe: that perspective is a vital, actual, existing thing, not an abstraction. (See Figures 5 and 6.)

Usually there are streets and houses visible from the school windows which may be worked up into interesting compositions. If there are not, it is well worth the sacrifice of a Saturday or two to go sketching, having first studied Hobbema's "Avenue," and any other available and striking examples of perspective in landscape. A bit of road, with a tree or two at different distances from you, a bridge, over a narrowing stream, a boat-house, to be sketched, if in angular perspective, without actually locating the vanishing points, are excellent practice, a real revelation to many of the pupils, and a jolly good time for every one.*

The application of color to perspective drawings of rooms has been suggested more than once in The School Arts Book; and that part of the work may be handled in such a manner as to be of immense value to the child, who will one day have a home of his own, and face the problem of decorating and furnishing it. If this phase of the work is taken up, the main thing in mind should be to attempt only what can be done thoroly. The color schemes should first be worked out with actual materials. Sample books of papers, wood-stains, drapery materials, may be had for the asking in any city; materials the store has sold out, but which are quite as good for school use as if they were "the latest thing." There cannot be, and should not be, any attempt to go into the question of "styles" and "periods." That is material for a five years' course of serious study in an art school. But without attempting the impossible, there remains within the reach of the high school student much valuable development

*Kansas City from Harlem Banks, a pencil drawing from nature by Wilmot Heitland.

of the sense of fitness of furniture to its use; of harmonious color; of simple line; and of good material.

To perspective thus taught there is no end. To its value, and to the possible fields of its development, whether as landscape study, composition-study, art-history-study, there is no limit, but that of your own ingenuity of mind, and the time you have to spend. You can make it open unending new delights and vistas for the pupil. It can lead you in any direction you choose, and carry you as far afield as you choose. It can be an "Open, Sesame," if you so choose, to all the world about us.

FLOY CAMPBELL

Normal Training High School
Kansas City, Missouri

COLOR

II. COLOR FORMULAS

ALL painters, decorators and designers work in a more or less systematic way with their color-schemes. After years of experience this systematizing leads the color worker to formulas, either of his own making or to formulas that others have used successfully.

The successful colorist, however, will seldom admit the "crutches," rather giving the impression that his achievements are due to a superiority which he somehow happens to possess. Some suggest, with due modesty, that only a gifted few can ever understand this most illusive subject. Others advance and hold to the idea that we all see color somewhat differently, forgetting that this remarkable condition would not admit of any acceptation of the finished color-product except by the few, if they could be found, who saw color in nearly the same way.

Most of the famous painters of the past are known by their color formulas. On seeing the work of a noted painter, we are led to classify and attribute it to its author quite as much because of its color-quality as the choice of subject or anything else that goes to make up his "style."

Too often the rules or set of formulas have so limited the painter that his pictures are mere repetitions, the one of another.

Most instruction in the use of color is from the standpoint of personal preference given in opposition to, or agreement with, the student, and this usually leaves the student in an utterly helpless condition when thrown on his own resources.

If the instructor is sincere and sufficiently unbending, he offers the student his formulas and as a rule the student of color is only too anxious to collect a large number of these recipes rather than to do his own thinking, and in this way he becomes a diminutive repetition of his master, unless he has enough individuality to break away and formulate for himself, or a

greater insight than his instructor, and is able to carry ahead and add to the formulas offered to him. It was in this way that the apprentices of the old masters excelled.

This condition, however, has been broken into by the color-theorist who endeavors, by offering definite knowledge of color, to do away with, or to explain the personal equation. His aim is to aid, in the selection of colors, the number to be used, as well as the relative proportions of each, their juxtaposed combinations and suppressions and their relative light and dark properties. But because of the interdependence of the various elements of a pictorial arrangement or design, he is misled into trying to govern too much, with the result that systems are evolved that restrict while they fail to explain. A real understanding of color would explain personal preference but the system is only a make-shift made up of half-truths and false standards.

The idea of a cut-and-dried scheme that must be used only as given, is offensive to the painter, and, inasmuch as most theorists who have offered systems, have advocated several, they show the uncertainty of all such schemes and those who have offered several and committed themselves to none, in just so much, condemn the system, themselves.

The color system has made but little headway in the art schools, though it has appealed to teachers of art in schools where this study is one of several and but a limited amount of time may be devoted to any one subject.

The common error fallen into by most color-theorists is one that leads them to try to determine the least number of colors that may be chosen for a standard. And it seems to be a prevailing idea that the success of choice and combination depends upon these colors constituting white light or gray. Now the musician does not search for the least number of sounds that will produce silence; he has silence without any sounds

at all; and so the painter may have gray without any color at all.

There is no particular advantage to be found in a definite, small number of colors; we see a great number of different colors, and the problem is to classify them so that we may use any of them at will.

The fact that two colors may be made to produce white light is not so very significant, for three, four, five, six or a hundred may be employed to produce white light, or we may have white light without considering any colors whatsoever. And yet the basis of most all color systems is this small number of colors, which resolves itself into the teaching of complementaries and primaries. The word complement means that which completes, and white or gray is not complete color; rather, very incomplete. We find color away from white or gray, and the further from gray the color is taken the richer it is.

The conclusion, that any two colors constituting white light contain opposite color qualities equally balanced, is one based on the observation of physical phenomena, but is not verified by optical experiments.

The three primaries are advanced for simplicity's sake, but the real truth is much more simple, for we need to consider only one color as a fundamental.

Pigments standing for colors of the greatest intensity are chosen for standards and, as it is necessary to subdue intense colors in order to represent textures in variations of light, we are advised to degrade these strong colors in, principally, two ways. (Though pigments standing for degraded colors may be employed, instead of this advice, their relation to the vivid colors has never been determined by the theorist.) The most direct way to reduce the intensity of a color is said to be by mixing it with its complement using various proportions of each, according to the degree of suppression desired. The most logical, however, is

said to be the scheme of reducing primaries, thru secondaries to tertiaries, etc.

The best presentation of the three-color theory was offered by an Englishman, David Ramsey Hay, some sixty years ago, who proposed as a basis for all color-work six colors and six hues; his version of this system, usually known as the Brewster theory, declared that red, yellow and blue were three fundamental colors and that they, when mixed together two at a time, gave us the secondaries: orange, green and purple, which, in turn yielded the tertiaries: russet, citrine and olive. These three produced brown, slate and maroon which might be called the quatrinaries, though Hay called the six—russet, brown, citrine, slate, olive and maroon, tertiaries, and said they were the hues of red, orange, yellow, green, blue and purple. (This special use of the word "hue" has become obsolete since Hay's time.) The David Ramsey Hay system had no scientific foundation and was discredited almost as soon as offered. Several attempts have been made to revive it, but the fact of its limiting painting to three pigments, alone is sufficient to prove it to be a mere make-shift. The variety gained by choosing different pigments is something the painter will never be willing to give up.

The three-color basis has been varied to suit the claims for different colors to be used as substitutes for the red, yellow, blue set, as in those which were called the new primaries when first advanced we find the red, green and violet set; and again, the red-orange, yellow-green, and blue-violet set used in mechanical reproductive work.

But there is no necessity for arguing the relative merits of the various sets of primaries advanced, for if we must have three primes and you will choose them from the spectral hues, any three may be used if they are chosen with regard to the variations of their wave characteristics, thus: any three com-

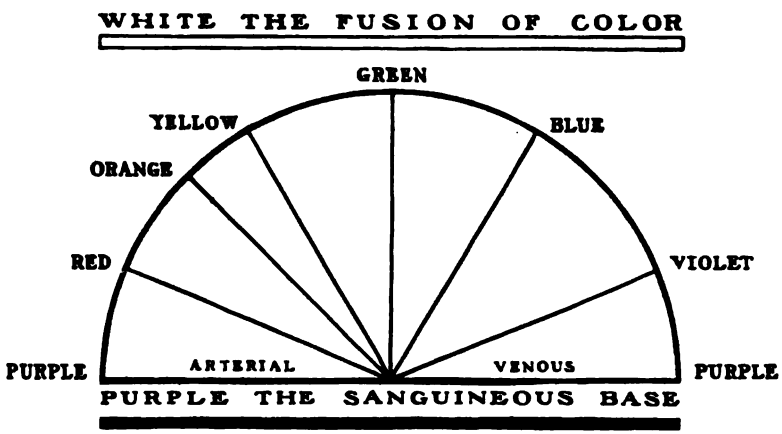
posed of one long-wave color, one intermediate wave-length color, and one short wave-length color, will be satisfactory. The spectral hues may be divided into three sections; then the long wave colors are those to be found below orange; the intermediate wave-length colors are those to be found between orange and green; and the short wave-length colors embracing all variations of color found above green.

The printer is sure to tell you that you have employed off colors, if he is unable to reproduce your colors with his three-color process; but this is not true; it is his process that is off. If it were perfectly satisfactory he could reproduce any pigmental colors that you might bring to him, but as yet, his process is only a make-shift.

Circular color-diagrams are employed to teach the relations complementaries and primes bear to each other, but they must all be classified as only near-truths. Travelling in a circle will get us nowhere; it will only bring us back to the point from which we started. The opposite color-qualities cannot come diametrically opposite as they are represented in the regular circular color-diagram. The semi-circular diagram accompanying this article is the nearest thing to a regular form that may be employed where the opposite color-qualities are nearly but not quite established by the quadrant.

As well as the working formulas, such as those involving the mixing of paint, received from the color-theorist and practical painter, we have been presented from a somewhat different source, the color-symbolist, with various color attributes, which, while often alluring, convey no great assurance. We are told that green is the emblem of patriotism, that it is the musical color, that it denotes tranquility and should be used to express love, youth and beauty, while yellow-green was the emblem of despair in the days of chivalry. Yellow, when golden, is used

to glorify, but when degraded is made to stand for the lowest human attributes. Orange is the color of anger, and red is the color of passion. Violet is the color of thought, and blue, while said to be true, denotes melancholy and gloom. Purple is the



color of royalty; black is used for mourning, and white represents purity. We may grant something to all this, but it is not very helpful for us to feel that in our realistic work we must lose the edge of a true (blue) color as it meets a thoughtful (violet) one, or that with a passionate (red) we may work an alternating pattern of purity (white), or that around a royal (purple) center we may employ a patriotic (green) border. Of course we should always observe the appropriate, but in these attributes we will not find anything that remotely bears on real color-harmony. Symbolism can be no guide as it is not the lone color we work with, and while colors call up sensations of passions, royal splendor or purity, the associated contrasting colors lessen the emotional value of any color.

The pathologist and therapeutist also have something to tell us, and, while it is not particularly comforting to know that red superinduces the homocidal mania, and blue superinduces the suicidal mania, or that there may be some baleful or curative properties connected with the particular pigment which happens to be on the point of our brush, still, perhaps more of real value to the aesthetic color-worker may be found here than anywhere else, for after all, there is but one satisfactory explanation of the basis of color-perception and that is the sanguinous. This explains all the aroused emotions as well as the physiology and physics of color.

A brief study of the semi-circular diagram will show that half-truths of all systems are explained by the purple-slant; every variation of color leads either to white, meaning gray, or to purple. We find we have done the same thing in each case; never mind how it is explained. The degrading of a color by its so-called complement merely means the purple asserting itself and in the tertiaries it will be readily seen that in all mixtures of red, yellow and blue, purple must dominate as the darkness hue, and if degraded pigments are chosen they are those that do not react strongly from purple or call up the purple sensation.

All variations of color cannot be made to conform to any very simple system.

There should be no rules. The natural laws should be understood, and they may be violated with discretion for certain effects. Anything is right if it looks well and is logical.

Don't teach formulae; teach phenomena.

LOUIS W. WILSON
Chicago, Illinois

CHUIGI AND HIS STENCILS*

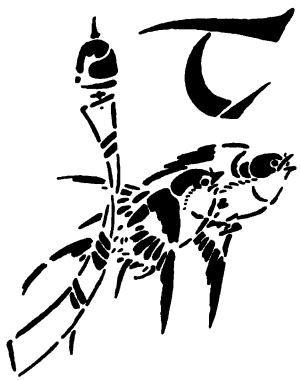


Fig. 1. Fu-rin (wind bell). The banner fluttering in the wind causes the gong to tinkle; a favorite garden device.

THE streets of Tokyo are flanked with an endless succession of tiny shops, so that the Western stroller falls finally to wondering where the people live. The question is easily answered. Nightfall finds the entire interior of a Japanese home converted not only into bedroom but actual sleeping space. Oriental household arrangements call for no such space-consuming enormity as a bedstead.

These thousands of lilliputian shops not sufficing, the small trade overflows to the curbstone, where, strung for miles along the kaleidoscopic ways are little booths, consisting each of a square of matting by way of ground site, the merchandise spread upon it, and the grave and courteous proprietor, bare of head, crouching, like a replica of Buddha, amid the surrounding bric-a-brac.

The wares spread out are infinity itself, but each tradesman is a specialist. One offers only *geta,* the wooden clogs for the street; or he may vary his stock to the extent of *sori,* also, the straw sandals for indoor use. Another sells nothing but writing brushes, while his neighbor cuts wooden seals, in classic Chinese characters, for customers who wait, and watch his clever handiwork. At the crossing a dapper little Jap will be frying lobsters' tails in oil, and next his stall an ancient but genial hag is devoting her whole self to paring hand-made toothpicks, for the chance trade of the street. Compute her income, at Japanese prices!

Just such a Nipponese Cheapside is the *ku,* or ward, of Asakusa (pronounced Asak'sa). Thru this congested district a considerable thorofare leads boldly up to the main

*Pronounced Chu'ghe, with the g hard.

Fig. 2. The bat (komori), meaning also, umbrella, so named on account of its winged structure. Fig. 3. Japanese sparrows.

gate of Asakusa Park, where rises a great triumphal arch of staff, to remember Japan's late victories on land and sea. Off this avenue lead innumerable narrow lanes, which are, indeed, the stuff of which Tokyo is made; not lanes where cattle graze, but tiny, narrow streets, without curb or sidewalk, and flanked interminably by the little shops that repeat themselves, mile after mile, in nearly every quarter of the city.

Fig. 4. The biwa fruit. Fig. 5. The morning glory. Fig. 6. A spray of flowering grass.

I had turned off into one of these byways, disconsolate and bored. Duckworth had started for Yokohama and home, leaving me alone again amid two million people whose tongue was unknown to me, as mine to them, and who did not eat my food or think my thoughts. Then, too, I had become sated with the endless repetition of things. It is borne in, at length, on the shop-stroller in an Oriental city, that there are after all but a moderate number of units in the amazing pattern at first so captivating, and that after he has reviewed the curio man, the comfit cook, the seal cutter, the toy maker, and, say, a score of others, the minutiae of the traffic panorama begin over, and all the sights that follow are replicas of things already seen.

In such a fallow frame of mind I stumbled over Chuigi. It was down a side lane hard by the Asakusa Arch. Here, in the shadow of a *geta* shop, a grizzled little Jap was squatted, Buddha-wise, beside a nondescript and tiny stand. He looked to neither right nor left, but endlessly traced marvellous slits in stiffened paper with his set of chisel knives.

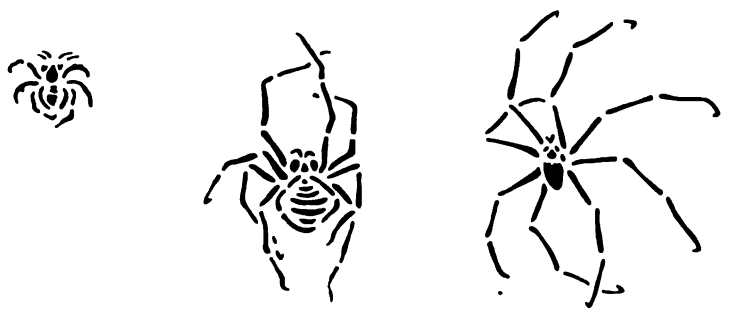


Fig. 7. Three varieties of daihachigumo (the spider).

Staring aimlessly at Chuigi as I had stared at a score of other curbstone artisans during the hour, I perceived that one eye sufficed him for his work, the other no doubt having suffered mishap at Port Arthur, or up the Yalu River. His little chisel knife moved suavely over pencilled tracings, with the same marvellous subtlety of effect secured by his kind with that far more tractable tool, the brush. Tongue has no words to describe the emotional power and beauty of a Japanese brush stroke. How, then, shall we appreciate, in terms, an equal mastery of a far less docile implement!

Chuigi's one eye sees the subtleties of form as only the masters see. And indeed here is the marrow of the art of Nippon. The Japanese have ever been oblivious to perspective, at first as children, in the beginnings of craft, and now for tradition's

sake. And their color is not pleasurably remarkable, in any consideration of harmony, but only for its delicacy of tints, and the skill in laying on. But for surpassing appreciation of the poetry of simple forms, and a parallel ability to interpret it, the

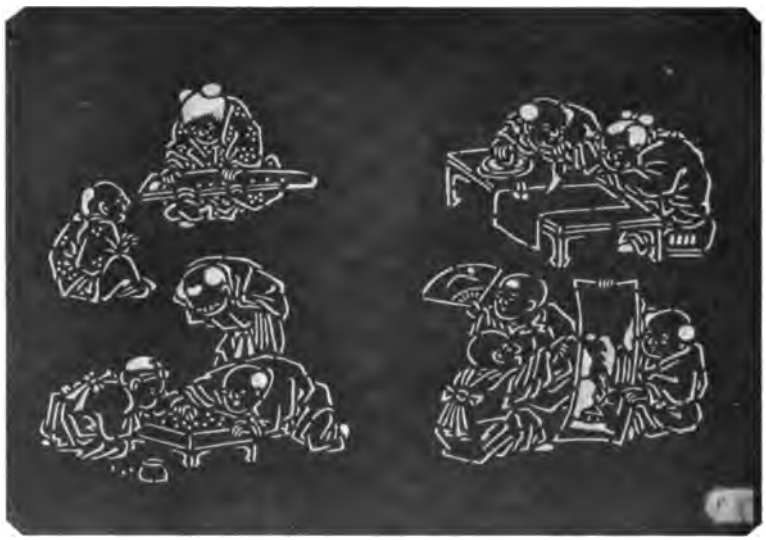


Fig. 8. A stencil which has been used, showing children at school and at play.

Japanese designer has no equal among men. He requisitions all nature for his themes, and is bound by no canon such as the Koran has imposed upon the art of Islam. His rules of interpretation are as conformable as his kimono itself. He absorbs into his soul a fragment of a mood, from a glimpse of a bird, or a butterfly, or a span of bamboo. And he sets the feeling down on paper, in his free-flowing, wonderful strokes. And these he can record with a hand that seems really a

heritage out of the centuries, in the certainty of its power. His form composition is unerring, and witnesses a study carried to its ultimate finish, and lost in intuition.

Chuigi worked with that certainty and lack of consideration which might well impute to the chisels themselves the esthetic intuitions which guarantee results. Every stroke was crucial, yet none went wrong, or was indiscreetly placed. I poked among the thousand or two of finished pieces on the trays and found them a stenciled record of Nipponese folk-lore and mythology. Since the Japanese have some eight million gods, and since these have respectively for their servants or familiars virtually all the forms of the animal and vegetable realms, it is apparent that Chuigi and his guild are rich in motif, if naught else. And his craft, if I may attempt to name it, lies in setting music down in terms of line and space. Each stencil was simplicity itself, yet subtlety unfathomable was there, in line and balance, and liquidness of stroke. Whether his objective theme be a simple plant spray, a bird, a fish or a heraldic story, the Japanese artist recedes to the farthest limit from a realistic portrayal and moves in a world of nearly abstract emotion. His work is a distillation of pure beauty, where the abstraction of line and rhythm and balance is the essential thing, and the mere objective fact, altho presented with a wonderful fidelity, does not obtrude.

Fig. 9. The fagot carrier, a study of the pose.

In such work as Chuigi's there are no mere accessories to the theme. Every tool stroke bears its burden, which is the burden of the whole. And, really, this same organized fidelity, translated into terms of civil polity, is what makes Japan a world power. In social and political Nippon there are comparatively few self-seeking units, nothing centrifugal, no flotsam and jetsam of waste. The nation is a flying wedge of forty-five million molecules whose cohesive strength has been attained in the fires of loyalty, which is about the same thing as artistic appreciation.

Fig. 10. A study of the Japanese trout.

It is said of one of the better known artists of Japan that on one occasion he swept in the main elements of his design within the space of a few moments, and then consumed three days in considering where and how he might best place his signature, which of course could not be less than a feature integral with the whole.

As I squatted before the trays, trying to extract from Chuigi, thru the futile medium of tourist phrases, a folk-lore adequate to his stencils, there came just at my shoulder a quiet and young voice asking in tolerably good English what it was I desired. I turned and found my questioner, one of the crowd about, to be a boy of fifteen, wearing the visored cap and divided skirt of the student class. With his painstaking help Chuigi and I

Fig. 11. Tai (the carp). The Japanese attribute to the carp bravery and other knightly qualities. The popular legend goes that he climbs waterfalls (something which a carp is far too lazy to do). The misbelief is the basis of many beautiful stencils.

finally accomplished quite an extensive transaction, as Chuigi's experience went, so that I came away with some two hundred stencils. Meanwhile, squatting by the trays, with my interpreting angel directing matters over my back, I was harassed by a question which must soon be determined. Should I fee my volunteer for his time and trouble? To offer a coin might prove an awkward error. To withhold might furnish a citable instance of the ungrateful foreigner, to a lane full of gentle wonderers. I adopted the latter view and, thanking the boy at parting, tendered him a piece of silver. I shall not soon forget the precise manner in which he declined,—a slight aversion of the torso, a steady gaze into my face and a softly spoken monosyllable utterly final in its intonation. He was too perfect in his motive to permit himself to be offended, much less to offend me in the refusal. The boy was as interesting, for the moment, as Chuigi himself. He would not, then, receive the coin, but he would be pleased to have the American's "name card." I forthwith produced the pasteboard and we parted with the utmost mutual consideration.

It is not for an Occidental to enter self-confidently into a criticism of Japanese design. I can offer no more, then, than a passing remark upon the stencils shown here.

The initial design has the utmost charm of airy grace, not at all enhanced by the addition, in other hands, of the letter itself. A wind-bell, that pleasing toy of the Japanese garden, depends from some unseen support, and a brace of swallows are flying past. Note the suggestion of breeze the knife has wrought. Figure 2, the bat, is a good example of the bold and successful use of line and mass together. The sparrows in Figure 3 are another. Figures 4, 5 and 6 show how consummate is the artist's skill in picturing forth the plant movement. In Figure 7 the spiders are done in such simple, naked strokes and yet are

so fascinatingly spidery. No. 8, dealing with children at school and at play, shows a masterly use of the chisel in representing the third dimension. The wood carrier, Fig. 9, is a charming pose study, and the more so in the present medium. Just as the swallows and bell flash out the impression of airiness in the upper world, so the Japanese trout, Fig. 10, carries the undulating, sinuous life principle of the sub-aqueous. Line and mass are equally subtle in their effect, and there is not one stroke too many.

A masterpiece is reached in Figure 11, where a carp is shown ascending a fall. This stencil actually roars with the downpour of waters, and the splendid torsion of the fish could not be more powerfully suggestive, in any medium.

We of the West, by the way, do not respect the carp particularly. With us he has a nowise spartan reputation, and is conceived as a lazy and flaccid gourmand. But in Nippon, where he is known as the *tai,* he is held in exalted esteem for noble prowess and high moral qualities, and he figures in numberless folk-stories and legends.

WALTER J. KENYON

Alameda, California

Typical Japanese dwellings

TEN GREAT PAINTINGS

VI

THE ASSUMPTION

By TITIAN

THE greatest paintings are in one way like the greatest books. Who ever mastered the Dialogs of Plato, or Kant's Critique, at the first reading? Who ever felt satisfied with his first reading of the Divina Commedia, or of the immortal Faust? When I once mentioned to Dr. William T. Harris the difficulties I had encountered in Hegel's Aesthetics, he exclaimed with a reassuring smile, "Ah, that is one of the great books; at about the thirteenth reading it begins to yield its juice!"

The Assumption seems to me a work of this kind. When I first saw it I wrote in my notebook, "It disappoints me." When I had seen it again I wrote, "The composition of the picture and its light and shade are of course admirable." Ten years after my first sight of it I saw it for the third time, and went into its presence day after day. Then I wrote, "Taine is right. 'Venetian art centers in this work, and perhaps reaches its climax.' It is certainly one of the supreme masterpieces of the world."

The Assumption is a large picture, so placed in the Academy of Venice that one sees it first across a long gallery and thru an archway; the sight-seers coming and going before it seem a part of the crowd in the lower portion of the canvas, while above them all floats the brilliant, life-sized figure of the Virgin. "To this central point in the picture Titian invites us by all the arts of which he is a master."* And he is master of all the arts known to the painter.†

*From a description in Crowe and Cavalcaselle's History of Painting in North Italy.

†See Ruskin's "The Two Paths," Lecture II, The Unity of Art. The colors of the picture seem too intense and its contrasts too sharp for perfect beauty, as it stands here in the Academy, but it was painted originally for the high altar in the great, dimly lighted church of the Frari, and no doubt there, in its place, as it came from the hand of the Master, it was supremely beautiful, "incapable of any improvement whatever."

THE ASSUMPTION
By TITIAN

The picture deals with three realms: the realm of the earth, the realm of the air, and the realm of heaven; and these three are so interrelated that the picture is a unit. The central realm is in touch with the lower thru its lowest cherubs and the upward reaching men, and with the upper thru the encircling cherubs, the ascending Virgin and the condescending Father. It is in harmony with the lower thru its shadows, and in harmony with the upper thru its lights. It is in sympathy with the lower thru its intense activity, and in sympathy with the upper thru its cloudless joy. In the original the color forms a fourth bond. The contrasting hues of blue and orange, yellow and purple, red and green, most brilliant in the central realm, are subdued to the rich deep glooms of red and purple in the lower realm, and softened to the serene glow of green and yellow in the upper realm.

But each part of the picture has an individuality peculiarly its own. Below, the astonished and perplexed apostles yearn and pray and argue, in their darkness. Only one, John the beloved, who had cared for Mary since the crucifixion, is at peace and understands. In the realm of the air, illuminated by a light like the shining of the sun at noonday, the ascending Mary stands amid a brilliant and joyous throng of cherubs. In the face of Mary only is there a trace of anything but pure delight. In the upper part of the picture the Almighty, a cherub and a seraph, without mirth, but charged with an intensity of purpose, an all-consuming fire of good will, float in the glory that excelleth, as serene as a cloud in the white east at dawn. In form the Nameless One is an embodied intelligence; in symbolic color an embodied grace. He seems immediately conscious of everything, directly in control of all. At the very moment he would welcome the Madonna he listens to the adoring seraph, and restrains the cherub eager to crown the brow of Mary with the

wreath of immortality. From behind these upper figures a glory so deep and intense that the eye cannot fathom it streams in from the infinite spaces, and breaks in circling waves of celestial spirits upon the realm of air.

But after all Mary is the supreme attraction. Physically perfect, robed in beauty, a cloud beneath her feet, she is borne upward, but not by the whirlwind that carried Elijah above, nor by the angels that transported the body of Moses from Nebo to the sky. A hint of the whirlwind is here in the swirling robes; a hint of the angelic power is there in the festoon of cherubs; but Mary ascends thru spiritual attractions; she rises because her spirit responds again to the Divine voice. In her girlhood, she replied, "Behold, the Handmaid of the Lord"; in her prime, she answers, "Behold, I come; lo, I delight to do Thy will." Thus she is drawn from earth to heaven; from pain thru song to peace; from the mysteries of the life where we see thru a glass darkly, to the revelations of the life where we see eye to eye and know as we are known.

But look at the face of Mary. She has forgotten her friends below; she is oblivious to the flood of life and love about her; she does not see the wreath and crown above her head. There is for her one supreme attraction, to us invisible; on that her eyes are fastened, toward that she lifts her hands. That which was a light is becoming a face,—the sweet face she kissed at Bethlehem, the brave face she loved in Nazareth, the face she could not endure on Calvary, the face she had seen last above the clouds on Olivet, now transfigured with eternal glory,—the face of her own beloved Son. As the blessed truth dawns upon her faithful heart, a wonder of surprise, a vanishing sorrow, the unspeakable yearning of a mother's love, an inconceivable joy too intense for smiles or tears, throb and tremble in her own wondrous, fearless, upturned face.

"First a peace out of pain,
Then a light, then thy breast,
O thou soul of my soul! I shall clasp thee again,
And with God be at rest."

Who else but her Son of all the hosts of heaven could give her perfect welcome to the Father's house?

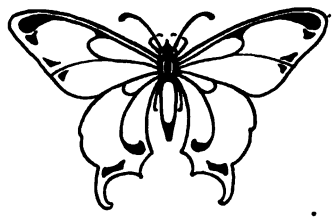
Whether we accept Ligouri's account of this "Glory of Mary" or not, we must accept Titian's vision of it. He has shown us

the glorification of a great soul. He saw a triumph like that which Henry Van Dyke saw in the passing of Tennyson:

"From the misty shores of midnight,
Touched with splendors of the moon,
To the singing tides of heaven,
And the light more clear than noon,
Passed a soul that grew to music
Till it was with God in tune."

As the Madonna transcends the Laureate, so Titian's rich, full-organ harmony transcends Van Dyke's sweet melody, but both have the same message. It is the thrilling message of Easter.

HENRY TURNER BAILEY
North Scituate, Massachusetts



ANNOTATED OUTLINES

APRIL

DECORATIVE Design seems to be the topic most appropriate to the months of April, May and June. Spring has come; everything feels the urge of the returning tide of life. Then, if ever, creative work may be expected from the children. But creative work in the realm of decorative design is beyond the powers of most children in the primary grades. Ideas of ordered beauty seldom sprout thus early. Of course we can force children to make decorative designs in these grades, but we cannot force a genuine appreciation of them. Love of the pictorial is still strong, and therefore the pictorial element is dominant in the primary outline. In the grammar grades decorative design begins at once in a problem presented by the just completed work in pictorial drawing, namely the making of appropriate covers for the booklets. The grammar grade children are thus finishing a booklet, while the primary children are beginning one.

PRIMARY

In these grades we continue our class observation of nature, but more directly for the sake of the objects themselves. The lessons for the rest of the school year will form, in each grade, a connected series, resulting in a little book, with a pretty cover.

FIRST YEAR. Begin a booklet entitled, Springtime.

Each teacher should plan a booklet entire, at the outset, according to local conditions. It might include illustrative drawings and brief written descriptions of the spring activities, the spring plays and games. In the country the farmer sows seed, in the city the hand-organ man appears; in the country the children go for early flowers, in the city they play games on the sidewalks. The subjects will differ in different localities. The drawing reproduced as Figure 1, was made by Earl Peirce, Stockton, California. The gardens in the foreground show the survival of Egyptian perspective, but the composition

of the whole is good. Let the subjects in April deal with the larger aspects of things, the flight of wild geese, the return of the birds, April showers, ploughing, sowing seed, etc.

SECOND YEAR. (U) Begin a booklet concerning Spring Growths.

Each teacher should plan a booklet entire, at the outset, according to local conditions,—class, available material, time per week, etc. It should include drawings of pussy willows, alder catkins, the first hepatica, mayflower, crocus, or whatever it may happen to be, with brief descriptive text. Do not make the pages too large. Make them children's size. The title of the booklet may be fanciful. "Mary's Garden" was popular last year. "A Laughing Chorus" would be a good subject for April:

Fig. 1. The coming of spring, by Earl Pierce, II, Stockton, Cal.

Oh, such a commotion under the ground
When March called, "Ho, there! Ho!"
Such spreading of rootlets far and wide,
Such whisperings to and fro.

* * * *

"I'll promise my blossoms," the Crocus said,
"When I hear the bluebirds sing,"
And straight thereafter, Narcissus cried,
"My silver and gold I'll bring."

"And ere they are dulled," another spoke,
"The Hyacinth bells shall ring"
And the Violet only murmured, "I'm here,"
And sweet grew the air of spring.
Then, "Ha! ha! ha!" a chorus came
Of laughter soft and low,
From millions of flowers under the ground—
Yes—millions—beginning to grow.

Fig. 2. A page from a "Laughing Chorus" booklet. Drawing by Helen van Emburg, I, Ridgewood, N. J.

What a pity we do not know the name of the author of this jolly spring song.* Figure 2 shows a page from a "Laughing Chorus" booklet. The drawing is by Helen van Emburg, Grade I, Ridgewood, N. J., but the page as it stands was arranged to show how all the pages might be laid out.

THIRD YEAR. Begin a booklet on Outdoor Neighbors.

The title may be determined by the individual pupil or by the teacher. The booklet should deal with the animal, bird, insect life of the spring. The

*The song may be found in Miss Lovejoy's Nature in Verse. Silver, Burdett & Company.

subjects for individual pages will be determined by local conditions. The drawing of the birds in order of their return, and the writing of descriptive text for each would form a good series. Another good series would be studies of

Fig. 3. The return of the birds, by Frank E. Johnson, III, Bristol, Conn.

the frogs, turtles, fishes, etc., which always figure so largely in a boy's life in the country. The drawing at Figure 3, by Frank E. Johnson, Bristol, Conn., shows a flock of birds, full of life and joy, tho done in ink.

GRAMMAR

The designing of the covers for the booklets affords opportunity for a review of color, and a study of the other elements of beauty in book covers, proportion, rhythmic subdivisions, good lettering, appropriate symbols, balance of attractions, and har-

mony in character of parts. The drawing time for the entire month need not be spent on the covers, but they should be well done. The pupils should begin to gather material for use in decorative design,—sketches from the spring plants, birds, insects, trees,—whatever is related to their other work. All such material will be serviceable later.

Fig. 4. A cover by David Kearns, IV, Dominican Academy, Fall River, Mass.

FOURTH YEAR. (U) Make a cover for the booklet on Silhouettes, using one color and black, white or gray.

The illustration, Fig. 4, shows a good cover, such as pupils in this grade should aim to produce. It is extremely simple in plan, well spaced, and consistent in handling. The original is in black on a toned paper. The order of steps in producing a good cover in any grade is as follows:

a. Determine the size and shape, and general arrangement. This can be a class exercise, with blackboard sketches.

b. Let each pupil submit several sketches for his own cover. Have these discussed. Select the best and revise it.

c. Redrawing of the revised sketch.

d. Select the paper for the cover; fixing the color scheme.

e. Transfer the design to the cover.

f. Finish the cover.

FIFTH YEAR. Make a cover for the booklet on Picture Making, using complementary colors.

The original of Figure 5, exhibited an arrangement in tones of orange-yellow, with a deep violet blue in the lettering and the margin line. Its simplicity is to be commended. The drawing of the cube is so formal in its design

Fig. 5. A re-arrangement of a cover by Lois Bowen, V, Auburn, Me.

and so conventional in its treatment, that it carries its part as a decorative element, rather than as a picture, and the whole is pleasing in proportion and in the spacing of its parts.

SIXTH YEAR. Make a cover for the booklet on Foreshortening, using tones of one color.

The "occult balance" of elements, as illustrated in Figure 6, is difficult to achieve. Perhaps it would better not be attempted in this grade, except by the more talented pupils. In the illustration the decorative square is fully as large as it should be. The division of the long word, Foreshortening, is

somewhat unfortunate, and yet, under the circumstances, perhaps the breaking of the space at the right, which this division brings about, is the only thing which would produce sufficient attraction on this side to counterbalance the bowl. The original was in four tones of gray.

Fig. 6. An arrangement for a sixth grade cover, based on a drawing by May Voigt, Easthampton, Mass

SEVENTH YEAR. (U) Make a cover for the booklet on Convergence, using analogous colors.

The original of Figure 7 was made by using cream colored paper upon a ground of middle value orange, half intensity, and a colored pencil of dull red. This gave an effective group of analogous hues, and a fine scale of three tones. As a rule the title would better come near the top. In this design the high horizon and the dark sky in the decoration are sufficiently attractive to raise the center of balance of attractions to the right level, namely, well above the geometric center of the page. The lettering is well spaced, and the large blank areas are effective in tying the two panels together.

EIGHTH YEAR. Make a cover for the booklet on Aids and Tests in Pictorial Drawing, using any harmonious colors.

The cover shown at Figure 8 is unusually good for grammar grade work. The chief modification made in the original was the addition of the black sky. The ornament upon the dress, and the puzzling lines beneath the tablet were too much for a light sky to balance. The strengthening of the chief outlines,

Fig. 7. An arrangement for a seventh grade cover, embodying a drawing by Elsie Livingstone, Englewood, N. J.

especially the outer lines of the enclosing rectangle, added greatly to the effectiveness of the design. The colors of the original are orange-yellow tint, yellow shade, red (in ornaments of dress and of head), and black—all the colors except the red being of low intensity.

In all this work make generous use of examples. Book cover designs may be found in abundance in book catalogs; the librarian of the public library often has paper covers (the wrapping of new books) which the schools can have. Keep the designs simple.

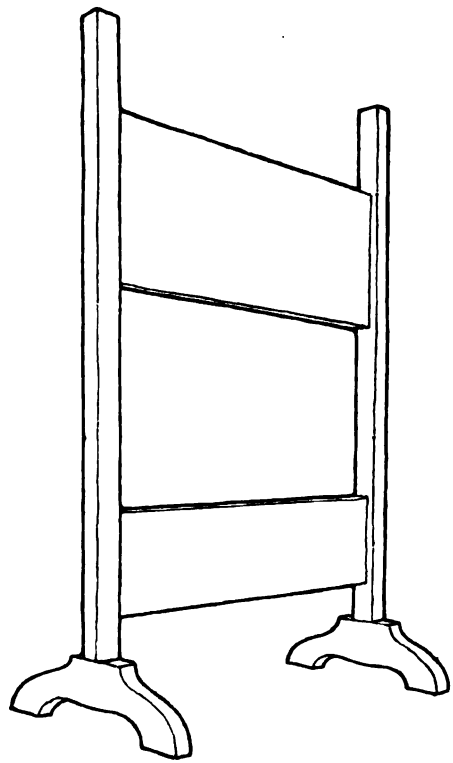
H. T. B.

Fig. 8. A cover (slightly modified) by Bertha Miller, VIII, Marengo, Ill.

HIGH SCHOOL

FREEHAND DIVISION

In our last month's outline we considered the use of curved lines in the formation of contours of objects and for frames and their use as rhythmic growth for the development of floral designs.



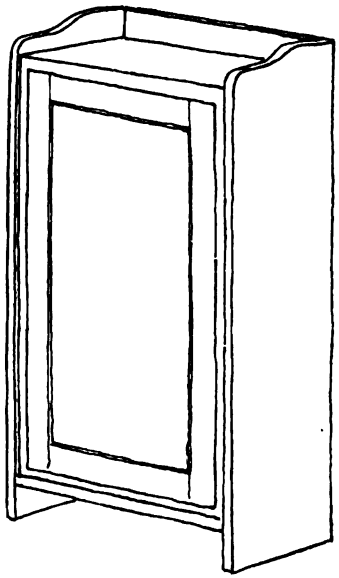
The designs which have been considered thus far have been problems in the flat or for surface decoration. This kind of design is in many instances the only kind attempted or thought of. It would be unfortunate, however, to limit the work to this and our school year should include some consideration of design in three dimensions or the planning of a real object. This work will be opportune now as pupils in high schools with wood-working shops should have reached such proficiency in joinery problems by this time to permit a serious effort in the making of a piece of furniture as a final product.

Our consideration in previous numbers of the proportion of two parts to three will stand us in equally good stead here.

A broad classification of the general subject of furniture will lead to the dividing of it into the three heads of tables, seats and boxes Sometimes an article is a combination of two of these, or possibly three One can easily arrange under one of these heads any article of the nature of furniture.

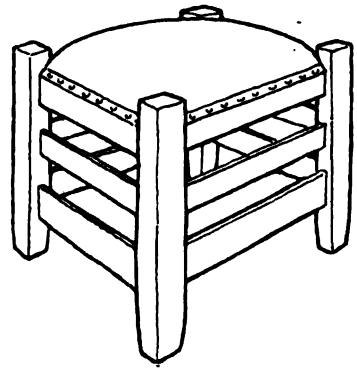
The goal for any class in constructive design should be the production of an object that shall combine use and beauty. Either without the other is incomplete.

In order to attain this goal the pupil must learn that:——



I. The form given the object must practically assist and visibly enhance its purpose.

II. The material employed for construction should be appropriate for the purpose and serve as an element of beauty. Under no circumstance should it be disguised or masquerade as another material.



III. The method of construction should be frank, honest and true, so that apparent strength shall be real strength, and apparent construction, real construction.

With these fundamental principles in mind a class can apply them to all problems that present themselves. The practical considerations of the size of the object and its parts must be settled at the time by each student and teacher. Choice of woods or other material and the kinds of joints to use must likewise be a classroom decision. The proportion, however, of width to height or height to length may be happily solved by experiments with the two-to-three ratio or its multiples.

A reference to the December Outline in the November School Arts Book will show an application of such ratios to a landscape which here may be adapted to the spacing of necessary parts of our chair, table or box.

It would be well in laying out this constructive design to use the regular working drawing arrangement of top, front and end views, placed in proper alignment. It is advisable to draw these original designs for objects free-hand to scale, showing correctly the thickness of all materials as well as the location of all parts. This is a much more difficult thing to do than is realized by the novice. Sketching over squared paper is a helpful method of obtaining correct results with a minimum of effort, each square being accepted as a size unit.

The completion of a freehand working sketch of an original object should be followed by the drawing of the same object in perspective. Mr. Mathewson's book on freehand sketches from working drawings will be the proper reference for this perspective drawing. The writer has found the drawing in perspective for a box of such proportions as will hold the furniture to be pictured is a very satisfactory plan. The object is elaborated within this perspective box as the furniture might appear within a crate, after which the original box lines may be erased.

Illustrations of good furniture of all the three kinds mentioned should be on view. The quantities of magazine illustrations and advertisements showing well designed models of this kind prevent the excuse that such illustrations cannot be had. Mount a goodly number of these on soft toned backgrounds and place them on view during these class exercises.

It would be wise to follow out the furniture designing just outlined even in high schools having no shops where the objects could not be made. The training in constructive thinking and intelligent observation of the forms and proportions of well made objects of use and beauty, together with practice in their graphic representation in projection or perspective, are too valuable lessons to ignore.

HAROLD HAVEN BROWN

Stuyvesant High School
New York City

MECHANICAL DIVISION

Copyright reserved by the Taylor-Holden Co.

The Cone. Obtain definition

Plate XIX. Make two views and develop surface as in Figures 1, 2, and 3, page 750. How much longer is the line ab than the line ad in Figure 2?

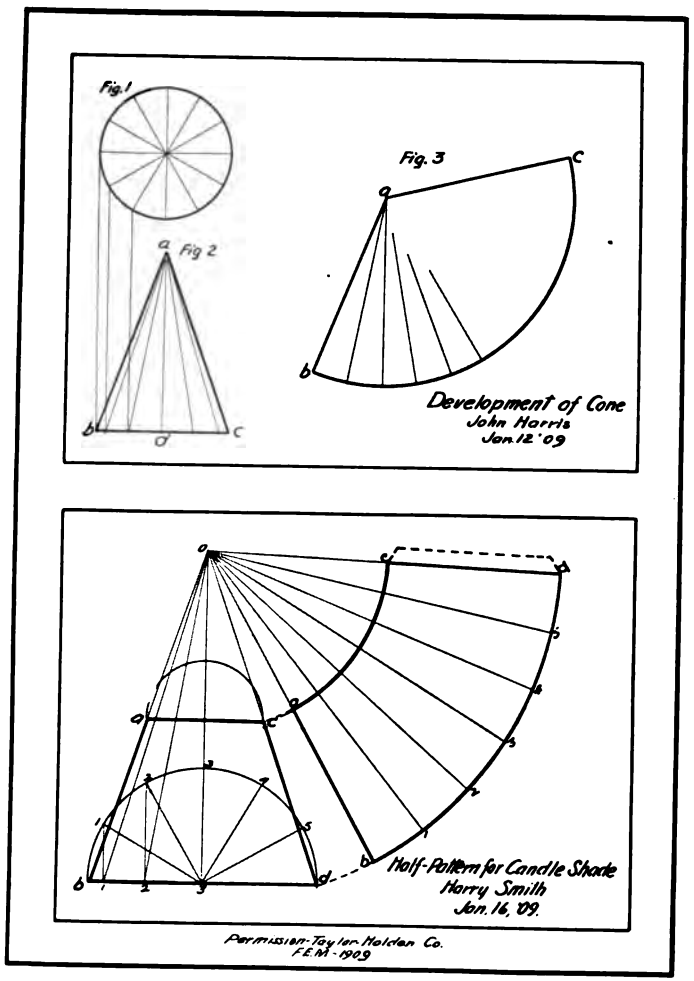
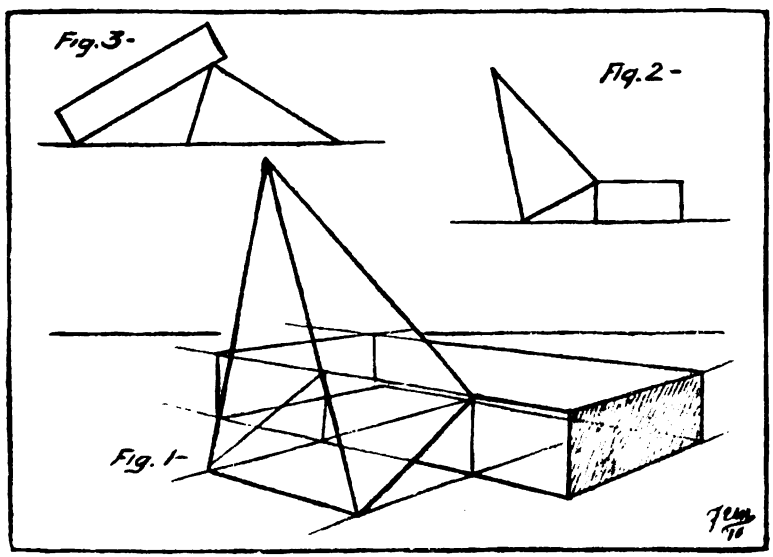


Fig. 1
Fig 2
a
b
c
d
Fig. 3
a
b
c
Development of Cone
John Harris
Jan. 12. '09
Half-Pattern for Candle Shade
Harry Smith
Jan. 16, '09.
Permission-Taylor-Holden Co.
F.E.M.-1909

How is the length bc of the developed surface, Fig. 3, determined? Why use the length ac for a radius in developing surface?

Plate XX. Pattern for Candle Shade. Make front view with desired dimensions. Continue sides ba and dc to point o. Draw arc bd and divide it into equal spaces, then proceed to develop half of pattern as illustrated in drawing. If there is room on the drawing plate, develop the whole pattern. Dotted



lines show allowance for lap at the joint. Candle shade to be made of thin copper or brass.

Plate XXI. Make front, top and side views of a square pyramid resting on a rectangular prism as shown in sketch on this page. The prism is 1" x 2" x 4" and the pyramid has a 2 1-4" square base and an altitude of 4 1-2". Make perspective sketch of the group.

Plate XXII. Represent the prism and pyramid described in previous problem with the pyramid lying on one of its triangular faces and the prism resting on the upper edge of the base of the pyramid as in Figure 3 of the sketch. The lower face of the prism makes an angle of 30 degrees with the plane upon

which the face of the pyramid is lying. Make front, top and side views of group together with a perspective sketch.

Plate XXIII. Represent in three views and by a perspective sketch a group consisting of a cylinder, 1 3-4″ diameter, 3 3-4″ long, upon which is resting an equilateral triangular prism, with rectangular faces, 2 1-4″ x 4 1-4″.

The lower rectangular face of the prism makes an angle of 30 degrees with the plane upon which the cylinder is resting in a horizontal position. In the front view, the end of the cylinder and one face of the prism are shown. Will the exact size of this face of the prism be shown in this view? Why not?

FRANK E. MATHEWSON

Technical High School

Cleveland, Ohio

THE WORKSHOP

WOODWORKING

A DUTCH WIND-MILL AND WEATHER-VANE

THIS is an old idea re-arranged and planned for a sixth grade class where it has been successfully constructed.

It involves work with saw, hammer, brace and bit, screw-driver, knife and file.

The detail sheet gives accurate plans for all the wooden parts in sufficient detail to show the manner of laying out the drawings upon the wood. The second sheet shows front and side views of the mill completed and mounted on a post.

Method of constructing and assembling:

Cut out the two pieces of, Fig. 1, the gables, with rip and cross-cut saw. Construct, Fig. 2, the sides, two pieces, in like manner.

Nail the sides between the gables as shown in Figure 11. Saw out the two roof boards and fasten them together with nails, Fig. 10.

Construct the base-board with its brace, and screw these together, Figs. 6-7. The center hole, thru these boards, should be a little larger than the spur upon which the mill turns. See Figs. 10, 11.

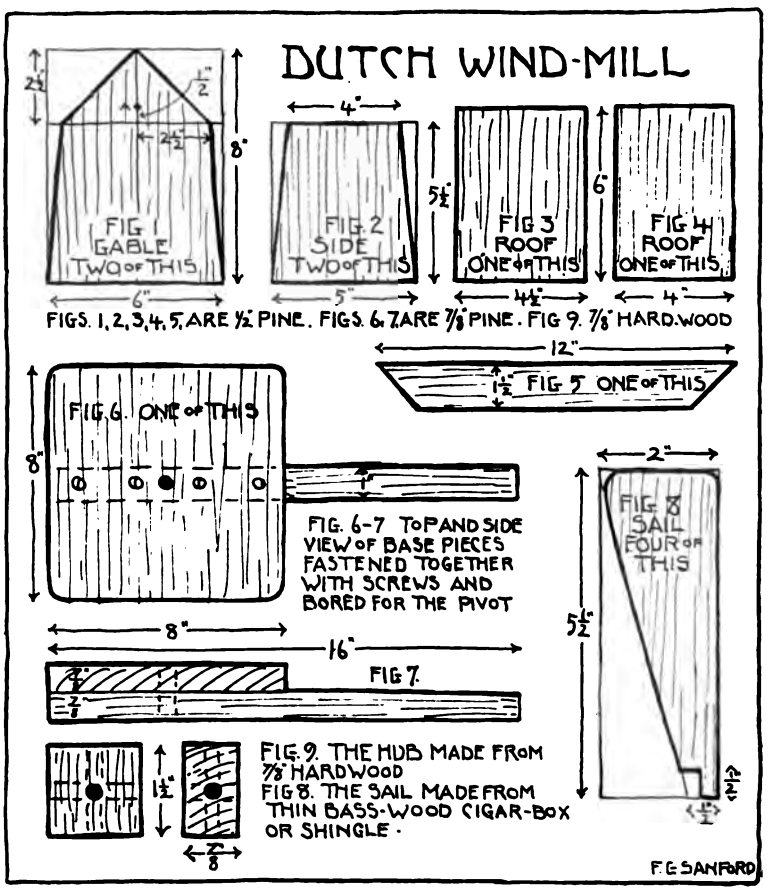
This spur which is set upright in the post may be a large spike with the head filed off. Fasten the frame of the mill to the base-board with nails from beneath. Cut out the piece, Fig. 5, with its angles made to fit, and nail as in Figure 11.

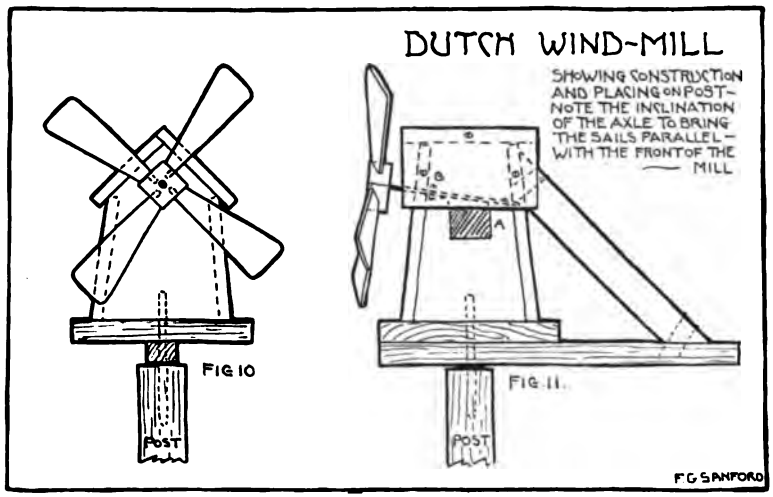
The opening, A, Fig. 11, 2″ square, may be cut or not. It will be an interesting experiment to see if the birds will build in the mill. Procure a piece of round metal rod about 1-4″ diameter and 7″ long. File the ends smooth.

With a bit, a little larger than the rod, bore the hole, A, Fig. 1, in the front gable, 1-2″ above the cross lines.

Slant the bit downward in boring so that it will pass thru the mill and one-half way thru the back gable at a point lower than in front. See Figure 11.

Construct the four sails or wings, as in Fig. 6, out of 1-4″ wood or the middle part of a shingle. The hub of hard wood is next made 1 1-2″ x 7-8″. Bore the center hole so that the axle will fit tightly. Set the sails in at an angle of 45 degrees, as shown in Figures 10-11, and fasten them with a small brad or pin driven thru the hub. After the axle is set in, with the sails upon it, wind a piece of wire about it, just inside the gable, at B, Fig. 11, to prevent it from slipping out forward.


DUTCH WIND-MILL
FIG 1 GABLE TWO OF THIS
FIG 2 SIDE TWO OF THIS
FIG 3 ROOF ONE OF THIS
FIG 4 ROOF ONE OF THIS
FIGS. 1, 2, 3, 4, 5 ARE ½" PINE. FIGS. 6 & 7 ARE ⅞" PINE. FIG 9. ⅞" HARD WOOD
FIG 5 ONE OF THIS
FIG. 6 ONE OF THIS
FIG. 6-7 TOP AND SIDE VIEW OF BASE PIECES FASTENED TOGETHER WITH SCREWS AND BORED FOR THE PIVOT
FIG 7
FIG 8 SAIL FOUR OF THIS
FIG. 9. THE HUB MADE FROM ⅞" HARDWOOD
FIG 8. THE SAIL MADE FROM THIN BASS-WOOD CIGAR-BOX OR SHINGLE.
F.G. SANFORD


DUTCH WIND-MILL
SHOWING CONSTRUCTION AND PLACING ON POST- NOTE THE INCLINATION OF THE AXLE TO BRING THE SAILS PARALLEL - WITH THE FRONT OF THE MILL
FIG 10
POST
FIG 11.
POST
F.G SANFORD

Last, fasten the roof on with screws so that it can be easily removed. Place an iron washer between the post and the base piece. Paint the whole in bright colors.

FRANK G. SANFORD
Oneonta, New York

WEAVING

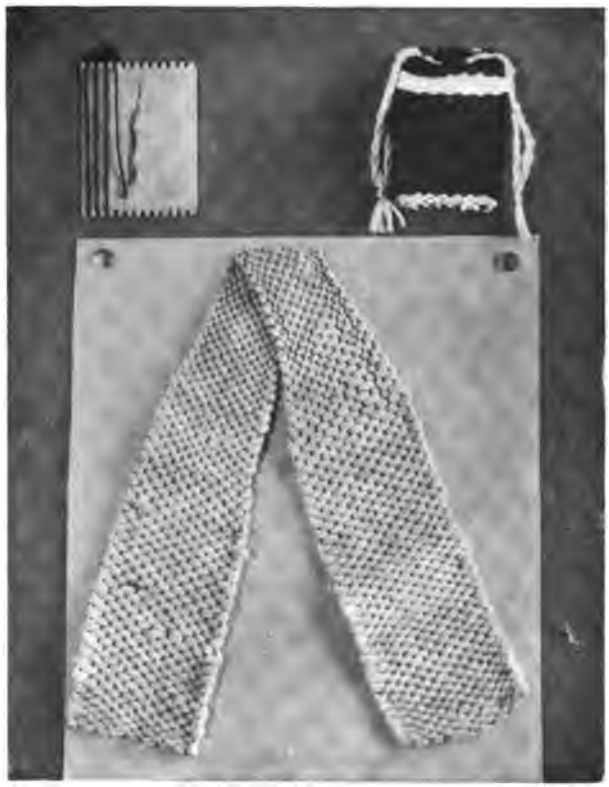
MARBLE BAG

PROCESSES. Construction of loom, use of wooden needle.

MATERIALS. The short side of a chalk box for a loom, roving, a wooden needle.

DIRECTIONS FOR MAKING

Use the short side of a chalk box for a loom. Cut 3 1-2 yard lengths of roving for the warp. Place a temporary knot in one end of the roving and use this knot as a beginning for the placing of the warp threads. Warp to have one end of bag open and the other closed when finished. Beginning with the knot at the top of the loom, carry the warp under the opposite notch and up on the under side of the loom to the starting point. Carry the thread across

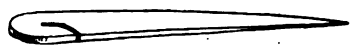


Loom for marble or bean bag, short end of a chalk box. Marble bag of yarn. Boy's muffler of roving; color, old blue. The loom is warped in the same way as for a doll's tippet. Third grade work.

to the next notch and continue to warp in the same way until all the notches have been filled. Fasten off the thread at the last notch and begin to weave all the way around. The warping for this exercise should be rather loose. After each round of weaving it will be necessary to cover two threads in order

to produce the proper arrangement of the overs and unders. The same rule obtains here as in weaving a basket having an even number of spokes.

In the first two grades the fingers should be the only tools. In this exercise the work is facilitated by letting the child make a needle of a thin strip of wood about 5″ long. A slit at the side of the needle near the top is better than a hole.



After the bag has been removed from the loom, use two 12″ lengths of roving to draw it together at the top. If used for a bean bag, sew the open end securely after the bag has been filled and omit the strings.

A pan-lifter or an iron-holder can be made in the same way if a larger loom is used. Two colors of roving, one for warp and another for weft make an attractive checkered pattern for the bag. In all exercises encourage the pupil to use taste in the selection and combination of colors.

BOY'S MUFFLER

MATERIALS. A shingle or strip of board 18″ long by 5″ wide, small nails for holding the warp, stout cord and roving.

DIRECTIONS FOR MAKING

This exercise is the same as that of the doll's tippet. (See December number of The School Arts Book.) Let each boy make a loom, 18″ x 5″, by placing nails one-half inch apart at the short ends of the shingle or board.

Warp with cord according to the directions for a tippet. Weave from the ends to the center and finish without fringe.

KATHARINE FRENCH STEIGER
Director of Domestic Art
Rochester, New York

NEEDLEWORK

COSTUME FOR A HIGHLANDER

"Just then the chiefs their tribes arrayed,
And wild, and garish semblance made,
The chequered trews, and belted plaid,
And varying notes the war-pipes brayed
To every varying clan;
Wild through their red or sable hair,
Looked out their eyes with savage stare,
On Marmion as he passed;
Their legs above the knee were bare;
Their frame was sinewy, short and spare,
And hardened to the blast;
Of latter race, the chiefs they own
Were by the eagle's plumage known.
The hunted red deer's undressed hide,
Their hairy buskins well supplied;
The graceful bonnet decked their head;
Back from their shoulders hung the plaid."

Sir Walter Scott's "Marmion."

There is perhaps no race of people whose dress is quite as picturesque as the Scotch, or whose national garb so exemplifies the characteristics of the people. They were hardy and vigorous, and their bodies were well toughened to the scanty apparel with which they were clothed in early times. In an account of the dress of the people a very old history of Scotland says, "They be cloathed after the Irish manner, going bare-legged to the knee." Another old book explains that the reason for wearing kilts was that they could not afford breeches.

The dress of the Highlanders is interesting from a social point of view in that it was characteristic of certain districts or families, in style of dress, in the pattern of the tartan or plaid, and in the manner in which the latter was worn. The word tartan is supposed to be derived from the French word "tére-taine," which means a kind of linsey-woolsey cloth. The origin of the tartan was many centuries ago, probably before 1600, and certainly before 1645. The wool was dyed, and the colors were arranged with the greatest care, so to preserve the pattern or "setts," each of which represented a different clan, tribe, family, or district. Tartans may be divided into two classes, green or red, according as these colors predominate. As formerly used, the tartan or "breacon-feile," was a plain piece of plaid, six yards long, and two yards wide. This kilt, as it was also called, was wrapped about the body, starting at the right

side, and was held about the waist in folds confined by a leather belt. The lower edge of the plaid came to the knee, and the remaining end was held in place at the left shoulder with a large pin, the end of the plaid often hanging down in front. There were many different ways of wearing the tartan,—one way showed that the wearer was on a peaceful journey, another that he apprehended danger, or was prepared for conflict.

It required great ingenuity to adjust the plaid, and quite a common way was to carefully arrange the folds of the plaid on the floor, then lie down upon it, and buckle it on.

It is generally agreed that there is no national garb which is as graceful and beautiful as the Highland costume, and certainly, for the time it was used and the race of people who wore it, it would have been impossible to find one more suitable.

The climate of the Highlands was raw and cold, but the wearer of a plaid could not be harmed by storms, when he could wrap himself in its warm folds. In olden times, when the Highlander was forced to spend a night out of doors in the storm, he would dip his tartan in water before wrapping himself in it. The heavy, woolen cloth, all drawn together with the moisture, would keep the wind out, and the heat from his vigorous body would condense into a warm vapor, which was supposed to keep him warm, but this is hardly a process which we would care to experiment with at the present time.

The loose undergarment which was worn under the kilt, and the short stockings (if stockings were worn at all), gave great freedom to the limbs, in any physical activities. Shirts were unknown for a great many years, but as time went on shirts or jackets were added to the costume, and the kilt now has the folds fixed by sewing, and the shoulder plaid is now worn separately, and, as the upper part of the body is sufficiently clothed, the plaid serves more for ornament than use. This plaid had no pocket, so a purse of goat's skin or leather hung down in front. This pocket was called a "sporan," and was often richly decorated. The stockings were generally of the same pattern as the plaid and were cut from the web of cloth. They ended just below the knee in a kind of turn-over cuff.

The bonnet was a most important part of the Highland costume. It was generally of blue cloth, often round and flat in shape, and was ornamented in some way at the left side, with a rosette and streamers, or with an eagle's feather.

The men of rank wore a short coat or waist coat, adorned with silver buttons, embroidery and lace, according to their station. These buttons were often very massive, and the reason given for wearing them was that if the

wearer were killed in battle at a long distance from home these buttons would defray the funeral expenses.

The women of the Highlands also wore a characteristic dress. Before marriage they wore a riband or "snood," which was the only ornament they were allowed to wear upon their hair. After marriage this was exchanged for a "curch toy" or "coif" of linen, which was worn straight around the head and tied under the chin. The plaid was also a distinctive feature of the dress of the Highland women, as may be seen by the accompanying song.

O THIS IS NO MY PLAID

O this is no my plaid,
Bonnie though the colours be.
The ground of mine was mix'd with blue,
I got it from the lad I love,
He ne'er has gi'en me cause to rue,
An' O the plaid is dear to me,
O this is no my plaid,
Bonnie though the colours be,
For mine was silky, saft, an' warm,
It wrapp'd me round frae arm to arm,
An like himsel' it bore a charm;
An' O the plaid is dear to me,
O this is no my plaid,
Bonnie though the colours be,
The lad that gi'ed me likes me weel,
Although his name I daurna tell;
He likes me just as weel's himsel'
An' O the plaid is dear to me,
O this is no my plaid,
Bonnie though the colours be.
Frae surly blasts, it covers me;
He'll me himsel' protection gi'e,
I'll lo'e him till the day I die;
His plaid shall aye be dear to me.
O this is no my plaid,
Bonnie though the colours be.
The time may come my ain dear lad,
When we will to the kirk an' wed,
Weel happit in thy tartan plaid,
That plaid that's aye sae dear to me,
O this will then be my plaid,
And while I live will ever be.

As worn by the Highland women, the plaid was brought together over the breast, and fastened with a brooch of silver or brass and the ends hung nearly to the ground in front. It was arranged so that it could be drawn over the

head in bad weather, or at other times if desired, but an edict by James II forbade all concealing of the face by the tartans.

All classes of women wore the plaid, snood, and brooch, but the quality varied according to the rank of the wearer, as may be seen by Sir Walter Scott's description of Ellen:

"A chieftan's daughter seem'd the maid;
Her satin snood, her silken plaid,
Her golden brooch, such birth betray'd."

The national musical instrument was originally the harp, but its music early proved too soft for such a warlike people, and bag-pipes were substituted. The music of the pipes soon became a veritable language for the race, depicting their deeds, and history tells us that the music of the bag-pipes has often been most efficacious in rallying the men and leading them to a victorious end in conflict.

Perhaps no national dance is more widely known than the Highland Fling, which receives its name from the character of the steps. Altho animated, as are all Scottish dances, each step is taken with care quite different from some of the dances of Southern Europe.

The costume depicted this month is that of a Highland youth clad in his tartan and jacket, with stockings to match. If we could only depict him with a bag-pipe, the costume would be quite complete.

DIRECTIONS FOR MAKING

The patterns this month are much more simple in planning, but require considerable free hand drawing or cutting.

Figure 1. Jacket. Paper, 8″ x 9″. Fold lengthwise and letter as in chart.

Point 1 = 1-2″ from A. Point 2 = 1″ from A.

Draw curve for back of neck from 1-2.

Point 3 = 2″ from A.

Draw curve for front of neck from 2-3.

Point 4 = 2″ from C. Point 5 = 5″ straight in from 4.

Draw line from 5-D and place point 6 on this line 1-2″ from 5.

Point 7 = 2 1-2″ from B. Point 8 = 5″ from B. Point 9 = 1″ from 8.

Draw curve for seam of sleeve and under arm seam of jacket from 4-6-9, and curve for bottom of jacket from 7-9.

Figure 2. Cuff. Paper 4 3-4″ x 2 1-2″. Letter as in chart.

Point 1 = 1-2 of line AB. Point 2 = 1-2″ from A. Point 3 = 1-4′ from B. Point 4 = 1-2 of line CD. Connect points with curves.

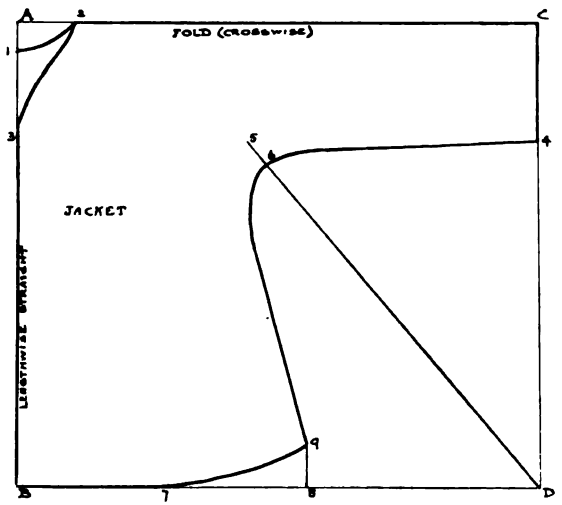


FIG 1

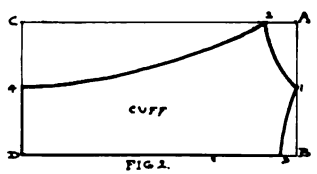


FIG 2.

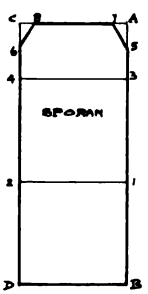


FIG 3

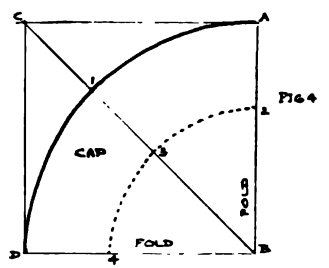


FIG 4

PATTERNS FOR 19" DOLL
SCALE ½" = 1"

Figure 3. Sporan. Paper 4 1-2″ x 1 3-4″. Letter as in chart.

Point 1 = 2 3-4″ from A. Point 2 = 2 3-4″ from C. Point 3 = 3-4″ from A. Point 4 = 3-4″ from C. Point 5 = 1-2 of distance A-3. Point 6 = 1-2″ of distance C-4. Fold on lines 3-4 and 1-2.

Figure 4. Cap. Paper 8″ square. Fold in quarters and letter as in chart. Draw diagonal CB. For point 1, measure distance AB (radius of circle) on diagonal CB from B, and draw circle free hand. Draw another circle inside of this, with a radius of 2 1-2″, thru points 2-3-4.

To cut and make.—Jacket. Open pattern at fold, and place on double thickness of cloth, with lines A B at selvage edges. Seam back of jacket curving slightly in at waist line, and leaving center back seam open 1 1-2″ at bottom. Join sleeve and under arm seams, leaving latter open 1 1-2″ at bottom of jacket. Face all edges with narrow facing cut on true bias. Neck may be finished with band cut lengthwise straight of material, and a stand-up collar worn inside. Fronts of jackets to lap with buttons.

Cuffs.—Cut with long, straight edge lengthwise of material. Face curved edges with bias piece of material. Seam cuffs onto sleeves, from the wrong side, to turn over onto right side, and finish points with buttons.

The Sporan in the doll's size may be fashioned from an old kid glove if no other leather or skin is at hand. The pocket is made by folding line 1-2 and stitching edges, and the flap, by folding 3-4 over the opening. A fringe may be stitched onto the bottom. The Sporan is fastened to the belt by leather straps.

The cap is cut from cloth with lines AB or BD, lengthwise. Turn over on inner circle, and lay fullness in plaits sloping these directly towards center. Sew into straight band just the head size. Finish cap, at left side, with quill and rosette.

The Tartan is made in the doll's size by taking a strip of plaid 54″ long and 8″ in width, and laying plaits according to the plaid, the number depending on size of waist. Place around body of doll, beginning at right side. When the material laps, lay plaits in remaining end (these plaits to run the opposite way of material), and pass thru buckle. Place this end over left shoulder, and let hang down in front. The tartan will cross in the opening of seam at right side of jacket, if correctly placed. Finish costume with leather belt and strap for sword.

The costume depicted this month is made from a red plaid, with a jacket of a plain, harmonizing color. The stockings are made from the plaid, cut on the true bias. The cap is made from a blue cloth, and the rosette from blue binding ribbon to match.

For a full size (10 or 12 years) costume multiply these dimensions by three.

BLANCHE E. HYDE
Director of Household Economics
Newton, Massachusetts

METALRY

MATCH BOX

On a piece of 20 gauge copper, lay out or draw the pattern as shown on Plate 1, first using pencil, then a scratch awl to insure permanency, going over the lines lightly on the metal. With a saw frame and a No. 3 saw, the corners are cut out, being careful to keep on the outside of the line and to allow a little for filing. The edges that form the corners are next filed, keeping all edges straight and at right angles, Fig. A, Plate 2. It is very important that these edges are kept at right angles, if the sides of the box are to be kept perpendicular. After the corners are carefully filed, the edges at B, Plate 2, are beveled a little to form a mitre which, when soldered, makes a much better corner. The sides and ends of the box are next bent at right angles to the bottom. To bend the sides, place the metal in the vise as shown at C and place a piece of wood a little larger than the metal for the box at the back, as at D; taking hold of the wood at either end, bend the metal toward you till it is at right angles to the part that is between the jaws of the vise as at E. The piece of wood helps to bend it more evenly. The metal is now in the shape as at F. To bend the ends, place a block of wood about 1 7-8″ x 2 3-4″ and 3″ or 4″ long in the vise as at G. Now place the metal over the top of the block as at H and, with a rawhide or wooden mallet, bend the ends at right angles to the bottom so that the box is now as at I. The corners should be brought well together, having the metal touch at all points.

If the metal is hard it should be annealed before bending, but if it is annealed after the corners are filed into shape the part to be soldered must be filed a little to remove the black scale caused by the heat. If this filing or cleaning is not done it is impossible to solder the joint. Having the corners brought together everything is ready for the soldering process.* Bind a piece of No. 24 iron binding wire about the box as at J to hold the corners together while being soldered. The corners are next coated with borax and the solder applied on the inside of the box. All four corners must be prepared and coated with borax for the soldering at the beginning and the solder applied at all corners.

The heat should be applied very slowly at first until the borax has crystallized and dissolved. After crystallization, the borax acts as gum, holding the solder in place and keeping the air from the part to be soldered. The corners are now taken one at a time and soldered. After the soldering is done the box is pickled, washed and dried. The corners are next filed a little to remove surplus solder, and the box is again placed over the block which is

*See November Workshop.

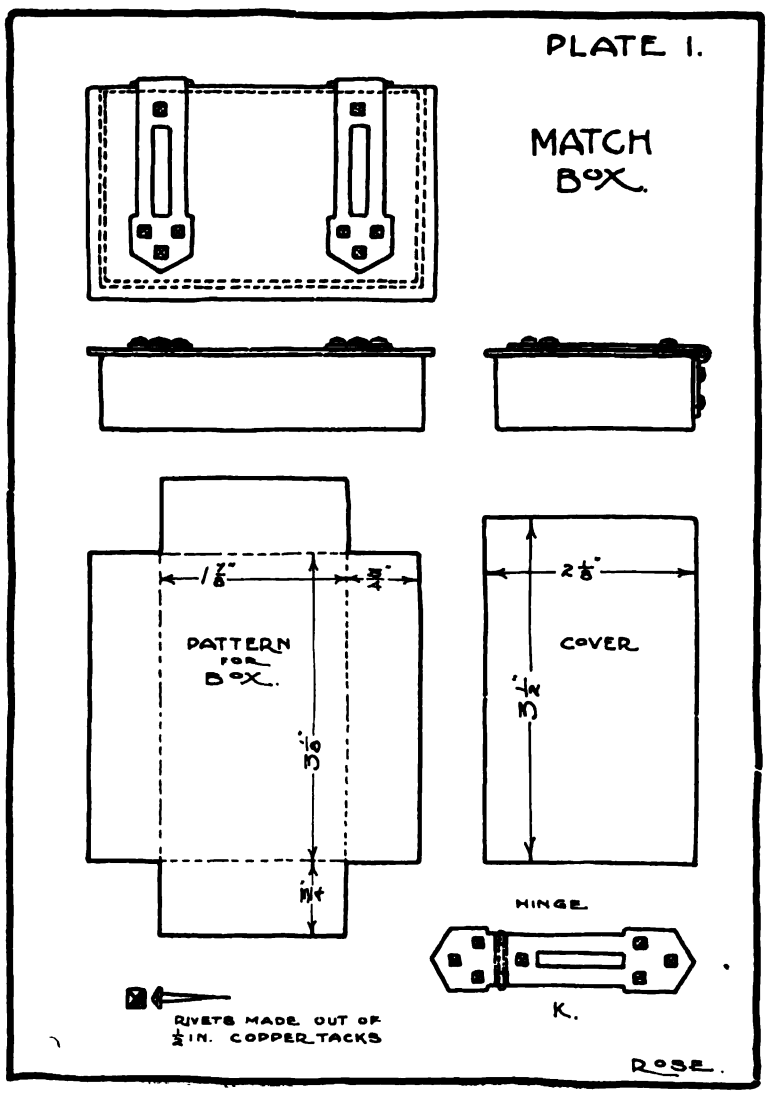


PLATE I.
MATCH BOX.
1 5/8"
3/4"
PATTERN FOR BOX.
3 1/2"
1/4"
2 1/8"
COVER
3 1/2"
HINGE
K.
RIVETS MADE OUT OF 1/2 IN. COPPER TACKS
ROSE.

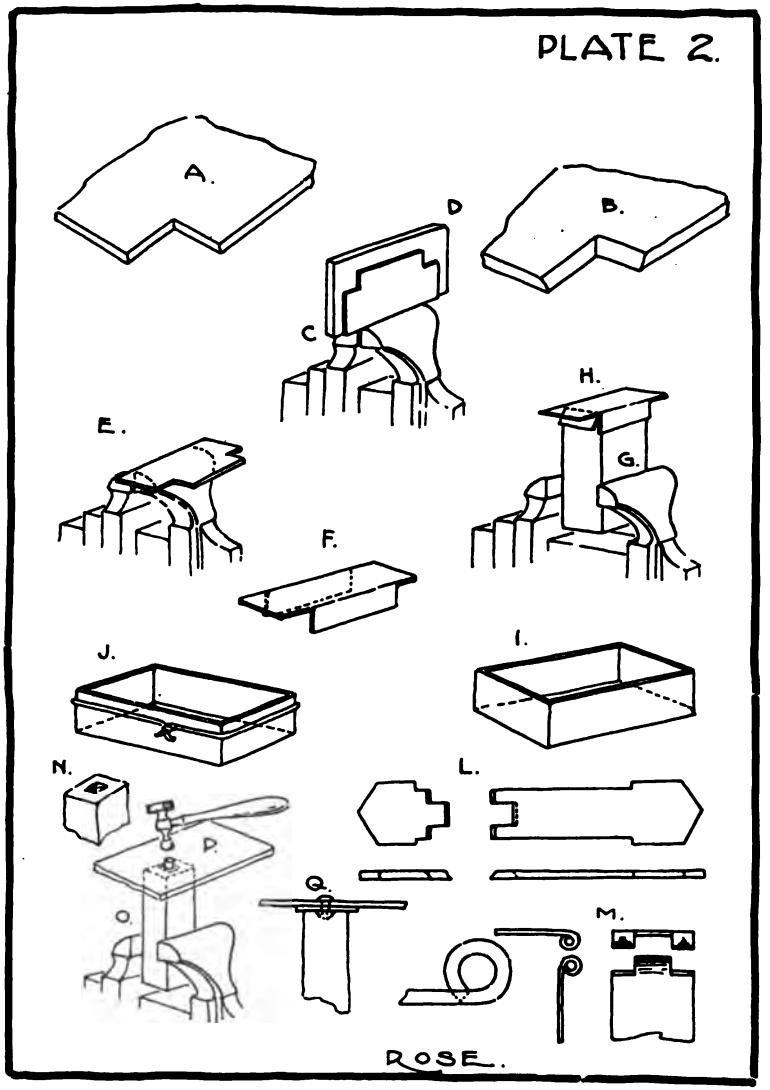


PLATE 2.
A.
B.
C
D
E.
F.
G.
H.
I.
J.
L.
M.
N.
O.
P.
Q.
ROSE.

held in the vise, G, Plate 2, to square up the corners and bottom edges. Better results are obtained if the block used for this part of the work is metal. A metal hammer is better for this than the wooden mallet. Too much hammering on the sides of the box will stretch the metal and make the box larger at the top than at the bottom. After shaping the corners and squaring up the sides, the top edges of the box are next filed level so that the box will be the same height at all points. In this particular case it is desirable to have the edges perfectly smooth so a piece of emery cloth is used after the filing. The cover is made from the same gauge metal as the body part of the box. On account of the hinge it is necessary that the cover come on a line with the back, but the front and ends project a little as on Plate 1. If desired, the top of the cover may be given a hammered surface, and after this has been done it is squared up and all edges left perfectly smooth.

To make the hinge, make a pattern or tracing from the design, K, Plate 1, and at the bend where the joint is to be, cut the ends as shown at L, Plate 2. On the long leaf of the hinge two projections are made as long as three times the diameter of the pin on which the hinge turns, and as wide as one-quarter the width of the leaf. On the short leaf of the hinge a projection is left of the same length as that on the long leaf and as wide as one-half the width of the leaf. The pin for a hinge of this size should be about one-sixteenth of an inch in diameter. A piece of copper or brass wire may be used for the pin, but a piece of steel or a wire nail is better because of their hardness. The ends are bent into shape with the round nose plyers as at M.

Drill the holes for the rivets in the hinges first, then place the hinge on the cover in the right position and mark the holes with the scratch awl. The holes are then drilled in the cover and in the side of the box. To make the rivets to fasten the hinge in place, take one-half inch oval head copper tacks and file them to fit. The heads of these tacks are circular so that they will have to be filed square as called for in the design. The long leaves of the hinge are first riveted to the cover, then the short parts are riveted to the box. In riveting the hinges, place the tack thru the hole and cut it off so that it will project a little less than a sixteenth of an inch. Take a piece of hard wood and on the end grain make a depression about the size of the head of the rivet as at N, Plate 2. Place this in the vise, O, and hold the cover and hinge over it as at P, holding the head of the rivet in the depression. With the hammer, the part of the tack that projects is riveted over, as at Q. Care must be taken to keep both parts of the hinge in line. The pin on which the hinge swings is the last thing to be put in place. The box is finished or colored as desired.

AUGUSTUS F. ROSE
Boston, Massachusetts

HELPFUL REFERENCE MATERIAL

FOR APRIL WORK

Arrangement

Brown, Book, May 1903; Stimson, The Gate Beautiful, pp. 291-298, etc.; Raymond, Proportion and Harmony of Line and Color; Raymond, Rhythm and Harmony in Poetry and Music; Raymond, The Genesis of Art-form; Muzzey, Studies in Line, Book, December 1907; Stock, Composition, Book, November 1908; Dow, Composition.

Rhythm

Miss Warner, Book, April 1902; Daniels, Book, May 1904; Miss Reed, Book, October and November 1907, The Rhythmic Ruler.

Interrelation of Units

Bailey, Book, March 1906, pp. 504-507; Batchelder, Principles of Design, pp. 53-67, etc.; Ross, A Theory of Pure Design.

Monograms

Bailey and Hall, Book, February 1902; Sperry, Book, November 1906.

Title Pages and Covers

The Printing Art (University Press); Walter Crane, The Decorative Illustration of Books, Old and New; Frank Chouteau Brown, Letters and Lettering; De Vinne, Title Pages; Lewis F. Day, Lettering in Ornament; Alphabets Old and New; Edward F. Strange, Alphabets; Edward Johnston, Writing and Illuminating and Lettering; French and Meiklejohn, The Essentials of Lettering.

MARCH

Slayer of winter, art thou here again?
O welcome, thou that bring'st the summer nigh!
The bitter wind makes not the victory vain,
Nor will we mock thee for thy faint blue sky.
William Morris.

1 TUE ☽

Go, lovely rose!
Tell her that wastes her time and me,
That now she knows,
When I resemble her to thee, How sweet and fair she seems [to be.
So sang

2 WED ☽

3 THU ☽ **Edmund Waller b. 1625.**
English lover of Nature and of Love.

For one swallow does not make spring, nor yet one fine day
Aristotle.

4 FRI ☽ **Sir Henry Raeburn b. 1756.**
Painter of whose portraits Stevenson said:*

5 SAT ☽ **Correggio b. 1524. Tiepolo b. 1693.**
Master of chiaroscuro. Last of the great Venetians.

6 ✣ ☽ **Michelangelo b. 1475.** [military engineer.
Painter, sculptor, decorator, poet, scientist, architect, and

7 MON ☽ **Sir Edwin Landseer b. 1802.**
Animal painter. He began exhibiting at the Royal Academy when but thirteen years old.

*They are so pat and telling and look at you so spiritedly from the walls, that, compared with the sort of living people one sees about the street, they are as bright new sovereigns to fishy and obliterated sixpences.

8 TUE ☽

I wonder if the sap is stirring yet,
If wintry birds are dreaming of a mate,
If frozen snow drops feel as yet the sun,
And crocus fires are kindling one by one.
Christina Rossetti.

9 WED ☽

10 THU ☽

Oh, March, we know thou art
Kind-hearted, spite of ugly looks and threats,
And, out of sight,
Art nursing April's violets.
Helen Hunt.

11 FRI ☽

Daffodils, That come before the swallow dares, and take the winds of March with beauty.
Shakespeare

12 SAT ☽ **Anton Raphael Mengs. b. 1728.**
German painter and art critic.

13 ✠ ☽

For him in vain the envious seasons roll,
Who bears eternal summer in his soul.
Oliver Wendell Holmes.

14 MON ☽ **Jakob Ruysdael d. 1682.**
Greatest landscape painter of the Dutch school.

15 TUE ☽

There is as much delight to be derived from the contemplation of sunshine on a meadow as from Mont Blanc itself, but it requires a more attentive eye and a more receptive mind.
William M Conway.

16 WED ☽

Turn swifter round, O tardy ball!
And sun this frozen side.
Emerson.

Enclosed and safe within its central heart nestles the seed perfection

MARCH

Oh, what a dawn of day!
How the March sun feels like May!
All is blue again, After last night's rain.
And the South dries the
hawthorn spray. *Browning.*
And the Spring comes slowly
up the way. *Coleridge.*

17 THU ◐ **Anna Jameson b. 1794.**
Author of "Sacred & Legendary Art."

18 FRI ◐ **Fra Giovanni da Fiesole, Angelico, Il Beato. 1387.**
His acquired names happily describe both his life & his pictures.

19 SAT ◐
From peak to peak, the rattling
crags among, Leaps the live
thunder. *Byron*

20 ✣ ◐ **Sir Edward John Poynter b. 1836.**
Painter and designer of stained
glass. President of the Royal
Academy.

21 MON ◐
"See the southing of the sun!"

22 TUE ○ **Rosa Bonheur b. 1822.**
French painter of animals.
Director of a school of design
for girls. Held a Cross of the
Legion of Honour.

23 WED ○

24 THU ○ **William Morris b. 1834.**
Of whom Burne-Jones said:

25 FRI ○ **Good Friday**
My servant Death with solving rite . . . . . He was a splendid leader, a great poet, artist, and craftsman, a still greater man, and oh! such a friend to know and love.

26 SAT ○

27 ✣ ○ **Easter Day**
pours finite into . . . . . infinite. . . . *Emerson.*

28 MON ○ **Raphael b. 1483.**
At Urbino his epitaph
ends: "This is the Raph-
ael by whom Nature
feared to be conquered
while he lived, and to
die where he died."

29 TUE ◑

30 WED ◑

31 THU ◑ **Wm. M. Hunt b. 1824. John La Farge b. 1835.**
Both American painters and decorators.

For Nature, giving instincts,
Never failed to give the ends
they point to. Never quailed
The swallow,
through air-wilds,
o'er tracts of sea, To chase the
summer; seeds that prisoned
lie, dream of and find the
daylight. *Westland Marston*

Snow on the earth, though
March is well nigh o'er.
Ice on the flood.
Fingers of frost where late
the hawthorn cover
Bourgeoned with bud.
Yet in the drift the patient
primrose hiding,
Yet in the stream the glittering
troutlet gliding,
Yet from the root the sap
still upward springing,
Yet overhead one faithful
sky lark singing.
Spring is not dead.
A. R. Orator

Strong Son of God, immortal Love,
Whom we, that have not seen thy face,
By faith and faith alone embrace,
Believing where we cannot prove;
Thine are these orbs of light & shade,
Thou madest life in man and brute;
Thou madest death, & lo, thy foot
Is on the skull that thou hast made.
Thou wilt not leave us in the dust:
Thou madest man, he knows not why,
He thinks he was not made to die;
And thou hast made him: Thou art just.
Alfred Lord Tennyson.

THE WIND IN A FROLIC

The Wind, one morning, sprung up from sleep,
Saying, "Now for a frolic! now for a leap!
Now for a mad-cap galloping chase!
I'll make a commotion in every place!"
So it swept with a bustle right through a great town,
Creaking the signs, and scattering down
Shutters; and whisking, with merciless squalls,
Old women's bonnets and gingerbread stalls:
There never was heard a much lustier shout,
As the apples and oranges trundled about,
And the urchins, that stood with their thievish eyes,
Forever on watch, ran off each with a prize.

Then away to the field it went, blustering and humming;
And the cattle all wondered whatever was coming:
It plucked by their tails the grave matronly cows,
And tossed the colts' manes all over their brows,
Till, offended at such a familiar salute,
They all turned their backs, and stood sullenly mute.

So on it went, capering and playing its pranks—
Whistling with reeds on the broad river's banks;
Puffing the birds as they sat on the spray,
Or the traveller grave on the king's highway.
It was not too nice to hustle the bags
Of the beggar, and flutter his dirty rags:
'Twas so bold, that it feared not to play its joke
With the doctor's wig, or the gentleman's cloak.
Through the forest it roared, and cried gaily, "Now,
You sturdy old oaks, I'll make you bow!"
And it made them bow without more ado,
And cracked their branches through and through.

Then it rushed, like a monster, on cottage and farm,
Striking their dwellers with sudden alarm;
And they ran out like bees, in a midsummer swarm;
There were dames with their 'kerchiefs tied over their caps,
To see if their poultry were free from mishaps;
The turkeys they gobbled, the geese screamed aloud,
And the hens crept to roost in a terrified crowd:
There was rearing of ladders, and logs laying on,
Where the thatch from the roof threatened soon to be gone.

But the wind had pressed on, and had met in a lane,
With a schoolboy who panted and struggled in vain;
For it tossed him and twirled him, then passed; and he stood
With his hat in a pool, and his shoes in the mud.

William Howitt.

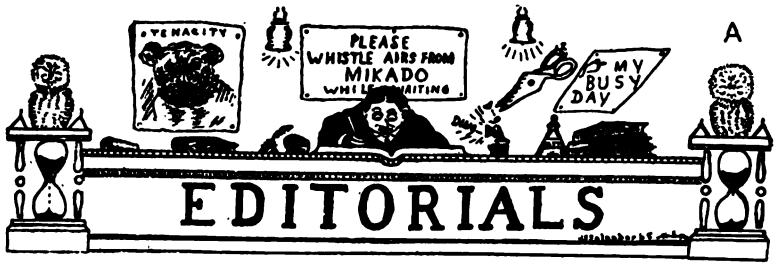
EDITORIAL

SOME months ago I received a letter from a supervisor of drawing in Illinois, who, in her profession, evidently places the emphasis where it belongs, not on the *super,* but on the *'vision.** She is not content to talk to her pupils, to criticise her teachers, to condemn bad work; she is alert to open blind eyes, to show the more excellent way, to lead in the paths of esthetic righteousness forevermore. This hopeful person sent me a handful of clippings from school publications, and asked for editorial comment upon them, that other "busy drawing teachers" might share with her the constructive criticism she felt sure I would give. Eleven of the clippings are reproduced herewith.

Inasmuch as the pupils everywhere will presently be submerged in Design, and teachers will be needing all the straws they can find to throw to them, I venture to comply with the request of the supervisor who wants my opinion. That we may have something to compare with the clippings from the school publications, I have reproduced also some headings which happened to appear in the last number of Printing Art, for the use of which I am indebted to Mr. Johnson, the Editor, and to the University Press. While these are the work of professional designers, far in advance of anything public school pupils can now produce, they will serve us well, for they exhibit certain qualities which all good work possesses, no matter how simple or how elaborate that work may be.

A comparison of the school headings as a whole with the trade headings as a whole reveals the fact that while the work of the pupils is crude, it is almost as elaborate, almost as rich in ideas, in variety of material, as the work of the professional designer. In one case, M, the professional has been content with two elements, the panel and a spray of mistletoe; while

* For this brilliant distinction we are indebted to Miss Helen E. Cleaves, one of the Boston supervisors.



Four headings from high and normal school publications.

the simplest design made by a pupil, C, contains three,—the panel, a group of cats, and the letters.*

Of course the drawing as such is notably better in the professional work. It could not be otherwise. But the drawing in the school work is not so bad, on the whole, that it would have been an outstanding disturbance in the designs, had the designs themselves been better in arrangement and in handling.

What is then the fundamental trouble with the amateur work?

Again comparing the two exhibits it is evident that in one the eye is distracted by details; while in the other the eye grasps wholes first. In A the eye sees first the detached objects, floating in the air; in B, the heavy letters and the light objects; in C, the cuneiform inscription and the empty corners; in D, the coiffures and the crazy capitals; in F, the three separate rectangles; in G, the desk panels; in H, the toboggan slide; in J, the paper cuttings and the photograph; in K, the apoplectic word and the intoxicated contours. Among them all there are but two which "hold together," E and I, and of these E is the better. In I the letters are not too heavy to go with the other darks of the design, but they are out of touch with the lights, and too attractive thru bad form. Had they been pure Roman letters with both heavy and light strokes the effect would have been improved.

Turning now to the professional work we find each heading practically a unit. L suffers for lack of the appropriate lettering; M, also for lack of the lettering, and perhaps because without it the dark line of the panel is too dark. In S, the curved sprays of laurel are undoubtedly too large; they are certainly too attractive. But on the whole the designs "hold together" in each case,

* Of course letters would appear in M, but the designer was willing to leave the style to the printer. In C the letters themselves were especially designed.

Four headings from high and normal school publications.

as a unit. The eye feels Heading; it does not get the sense of diverse elements forced to endure one another's company.*

The feeling of harmony in the professional work is due partly to the relative size of the elements. The lettering is of prime importance, of course, but it does not obtrude itself. This is not true in the work of the children. Even in E the letters are unnecessarily large. Nowhere in the professional work does one find such overgrown elements as the heads in D, and the monograms in J.

The worst elements in the school work are the letters. When will children learn that there is "not the slightest ghost of a pinch of a sniff of a possibility" of their making improvements in the forms of the Roman letters? They should modestly copy the forms with the utmost care. In the headings from the school papers there is not one word rightly lettered. In A the cerifs are wrong in E, R, and L; In B the H is nondescript and the letters badly spaced. In C the letters are whimsical and badly spaced. In D the Old English caps have been mangled. Old English caps should never be used for entire words. In E the M is too narrow to go well with the other letters and the spacing is bad. In F the letters are not consistent—the T's have cerifs at the top—and the spacing is bad. In G the S is incorrectly drawn, and the spacing is bad. In H the letters are fairly well drawn (except the R) and pretty well spaced, but they are too large for the band, and should not be sliding down hill. In I the C and the S are incorrect. In J no two of the letters belong to the same style. In K the letters are swollen and blotted out of shape, and are not even so consistent with one another.

* In A, the telephone appears to be exploding in fear of the scissor bird, approaching with opening jaws. In C, one cat is about to smell of a falling I, and another is crouching to receive on the head the stroke of another falling I. In D, the girl can hardly endure the hirsute capitals at her throat. And so one might go on. The elements are not happily related.

Three headings from high and normal school publications. This and the two foregoing plates are from pupils' work.

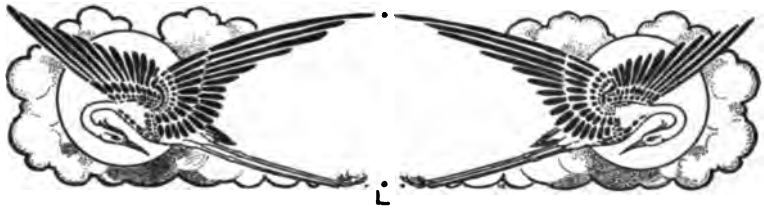
Now turn to the good lettering. If there is noticeable difference between the heavy strokes and the light, as in S, or but slight difference as in Q, those differences are preserved thruout. If the cerifs are sharp and thornlike, as in S, or strongly emphasized as in O, or reduced to mere points as Q, they are uniform in character thruout. Moreover these professional men hold closely to the plain Roman alphabet; they do not torture it for their own amusement.

But the effect of harmony is enhanced by the handling. Notice how little solid black the professionals use. Black is evidently precious. It is reserved for accent. The lines are all drawn in black of course, but they have the effect of gray. The letters are apparently the only black or at least are the chief black in most of the designs. Now glance at the amateur work; black, black, black, spotted everywhere.*

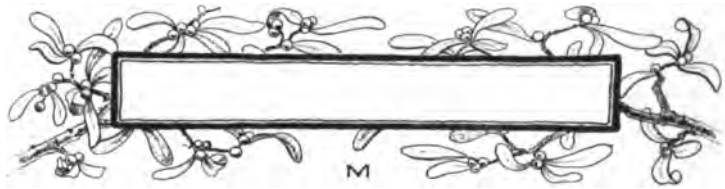
Lastly, the professional work is completely organized. This means that part is vitally related to part, the parts are interrelated in line, and work together to build recognizable masses—oblong, square, elliptical—and in every case obviously symmetrical,—not absolutely bilateral in every detail, but bilateral in effect. The principal lines or axes are vertical and horizontal to harmonize with the lines of the page. There is in them nothing analogous to "My busy day" in A; the "Editorial" in H, or the tilting ellipses in K. Moreover, thruout the professional work runs the decorative spirit. Nowhere is to be found a photograph combined with such baldly conventional details as in J, or such sketchy idealism combined with such ultra conventionalism as in A.† In the good work the drawing is considered first as a decoration, never as a picture. Its form is of first importance,

* From this point of view C, E, F, and H, are the best in distribution of color; but C is brutal in its contrasts; and F and H are weak. E is, on the whole, the most successful piece of design in the lot.

† Compare the electric light and the desk top, or the telephone and the hourglass!



L



M

N

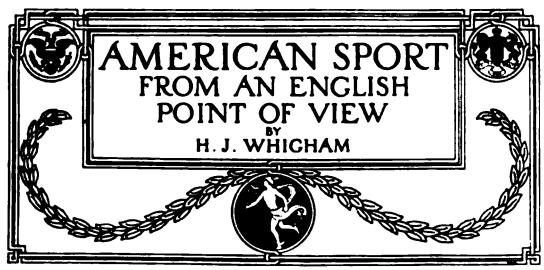
O

L and M, two headings from Paris Modes, New York. N and O, headings by James Scinor Young for the New England Magazine.

P

Q

R



S

P, designed by Robert McQuinn for The New Idea. Q and R, head bands by Thomas Maitland Cleland for The Woman's Home Companion. S, a head band by Gordon for The Outlook.

not its significance. In the school work the pupil's mind was in each case (with the possible exception of E and K) intent primarily upon the symbols rather than upon the beautiful form into which these symbols should be cast to make a heading for a page of type.

From the foregoing the following conclusions may be drawn:

(a) A design should hold together as a whole; should be a unit.

(b) A design should exhibit, therefore, harmony in the character of the parts, and in its handling.

(c) A design for a specific purpose must be adapted to the conditions. In this particular case the conditions are a rectangular page of white paper, ordinary Roman type of rather small size, and an oblong to be decorated as a symbolic head band, containing a legible title.

I might go on and criticise each piece of pupil's work in detail, and give suggestions for improving it. But what good would that do? The criticism would be too late. My only hope is that what I have said, being, as I believe, fundamental, may help in designing other headings.

¶ The cover stamp this month is from the south wall of the porch of the cathedral at Lucca, Italy. By its side is an inscription in Latin which translated by John Ruskin runs as follows: "This is the labyrinth which the Cretan Dedalus built, out of which nobody could get who was inside, except Theseus; nor could he have done it unless he had been helped with a thread by Adraine, all for love."

If you want a bit of interesting reading about it, turn to Ruskin's twenty-third letter in Fors Clavigera. This is an illustration of the filling of the circle by means of concentric lines. The drawing of such a pattern is a simple matter. It involves accurate spacing and precision in the use of the compasses. The design is extraordinary from the fact that to get in or out

the labyrinth every path must be traversed, and from the additional fact that the arrangement is apparently bisymmetrical.

¶ The frontispiece is one of the drawings made by Mr. James Hall for the new Nature Packet, published by The Davis Press. Mr. Hall's drawings render ten spring growths with the utmost directness and charm. Exquisite drawing and temperate but effective coloring are characteristic of these most beautiful and educational studies.

¶ The little decoration on the Bulletin and those used as tail pieces (with one exception) I made myself in honor of Easter. In the public schools we should not be sectarian, and therefore we must not interpret Easter too narrowly. We cannot interpret it too broadly nor too richly. 'Tis Easter for all the earth in the springtime, for birds, and flowers, for creeping things and flying midges; why not for the human spirit? The response to my request for Valentine suggestions was so satisfactory, that I have put another notice on the bulletin with reference to Easter greetings. The next February number will be richer than any previous one because so many bright people will have had a hand in making it. Let us guarantee a brilliant Easter number next year.

¶ Here is a question which came to me recently: "Is there a place in the United States where schoolroom decoration is provided for municipally?" Who can answer it? Usually schoolroom decoration has been the result of private initiative. The funds have been collected from individuals by subscription, by means of an entertainment, fair, or some other device. Is there anywhere a town or a city in which the cost of schoolroom decoration has been met wholly or in part by appropriations from the public treasury? All information on this point will be gladly

received by the Editor, and made the basis of a future editorial, for the promotion of the cause. One city is ready now to appropriate money, but will not for lack of precedent. Let us find out what has been done along this line. Be specific, when you write; give names, dates, and amounts.

¶ The poem about the wind, on page 772, was a favorite with the children two generations ago. It was printed in Russell's "Sequel," a reader in use in our country before 1850. The author, William Howitt, (English: 1792-1879), wrote many learned books, among them a History of the Supernatural in All Ages; but this little poem, dealing with the natural, won for him a place in the hearts of our little ancestors. It is ideal yet as a subject for illustration. Almost every line suggests a picture.

¶ The announcement by the Editorial Department of the American Crayon Company of a country-wide contest in drawing with "Crayograph" is worth the attention of teachers everywhere. The commercial side of this is stated with refreshing frankness in the circular issued by the Company: "In order to introduce to every teacher and pupil in the country our wonderful new crayon called 'Crayograph,' and to induce you to try them." But the other side is not stated, namely, the educational value of trying to win some portion of the $730 to be distributed in prizes. Any school in which this essay is undertaken in the rigth spirit will feel a new breath of life in its work. Boys and girls who seriously attempt to win one of the 490 cash prizes offered will receive in added power more than their money's worth, even should they fail. As one lays up money in a bank so may one lay up power for future use. Every honest effort adds to one's store of skill.

CORRESPONDENCE

TO find a teacher who succeeds "without a supervisor" and without all the other up-to-date materials, is a heartening discovery. Here is an Easter token, a butterfly with lifted wings, made by Mary Marshall, Grade V, Provincetown, Mass., with just manila paper, her own little fingers, and two colored crayons.

The letter which brought it to the office came from Miss Lillian Brooks.

Here is a good suggestion from a successful primary teacher:

An interesting and instructive lesson for primary children can be achieved in a short space of time with the combined use of pencil, paper, scissors and paint-box.

The gleeful faces of the small workers at the close of the lesson will demonstrate fully the fact that the work has been pleasurable.

Direct the pupils to fold the left half of the paper over upon the right. Then, going to the blackboard, quickly sketch half of a butterfly or moth. Tell the children to do the same upon the paper, beginning at the fold. Caution them to sketch lightly.

Next, have them take the scissors and again commencing at the fold, cut the outline as sketched, thus cutting the two halves of the butterfly at the same time.

If the pupils are very young, as the majority are in the first grade class, tell them to be careful about the head and body or they will come out "too broad."

When the cutting is finished and the folded wings opened for the first time, a happy little "Oh" will be heard, for the surprise will be universal when the children see their own success.

After this, if a few colored pictures of butterflies are shown (if real butterflies are obtainable, so much the better) very creditable results may be secured by the little folks in the painting of their own butterflies.

Later, a thread run thru the body of the butterfly gives it an opportunity to be suspended, as if flying; and a wire across a corner of the room with thirty or forty butterflies and moths hung from it is quite a pretty sight.

Mima C. Doyle, Omaha, Neb.

Bellows Falls, Vt., Jan. 25, 1910.

My dear Mr. Bailey:

I was guilty of sending the little "pung." It was made at home by Harry Holden, a fourth grade boy of Saxtons River, Vt. This pung was the pride of the whole school but they were quite delighted to give it to me to send to you.

The clever boy who made it has since passed to the Great Beyond.

I am, Very sincerely yours,

Mary E. Baker.

THE ARTS LIBRARY

BOOK REVIEWS

Landscape Painting. By Birge Harrison. 254 pp. 5x7-2. 24 halftone illustrations. Charles Scribner's Sons. $1.50.

This book among books on art is as distinguished as one of Birge Harrison's landscapes among the pictures in an annual exhibition. It is the work of a gifted, thoroly trained, experienced, kindly man, who says what he thinks, and feels, and says it winsomely. The reader feels that a strong man has given a warm hand and led him thru the beautiful world and the studios of great painters, with a helpful word at every turn. From the revelation of the hidden springs of landscape art in the first chapter to the convincing prophecy as to its future in the last, the book is fascinating. Here are a few sample sentences:

Color is very closely allied to music. Both are sensuous and passional, playing directly upon the emotions and producing their effects by some mysterious appeal to the sub-conscious, whose ways have as yet eluded us. Both, in their highest expression, come nearer to the perfect ideal of beauty as felt and understood by humanity than any other form of art.

Drawing is not a virtue to be extolled in a picture, but an essential to be demanded.

For the student who aims to go far in art the golden rule is, one thing at a time. Because a thing happens to exist in nature is no reason why it should be allowed a place in your picture—which is a work of art. Treat nature with respect and affection, but don't let her rule you.

There is not one of these rules of composition, nor one of the old conventional tenets, that cannot occasionally be disregarded to advantage. No! in this I am mistaken. There is one rule at least which must never be broken—the rule which says, "Thou shalt not paint two pictures upon one canvas."

There is only one path by which an individual or a nation can hope to attain to eminence in art, or even in the "arts and crafts"—and that path always leads direct to nature. We may study the antiques, and joy in them, and fill our souls with their beauty, but for our inspiration we must ever hark back to nature and get as near her heart as ever we can.

By the grace of God many of us are born with the sense of beauty; and even if we are gifted with but a tiny spark, this spark can be fostered until it grows into a clear and luminous flame whose light will transform the most commonplace scene or object into a vision of infinite loveliness.

I believe that the final picture must always be painted from memory.

If I were myself asked to supply a formula for the making of an artist, my receipt would be, one part genius and nine parts hard work.

Any reasonably capable youth can readily master all of the technical problems in existence in a few short months, but it requires many a long and weary year to learn to see.

He who attempts to improve upon nature either lacks judgment or is endowed with a conceit so colossal that there is no health in him.

Nature is not all beautiful by any means. But why should we choose to perpetuate her ugly side? I believe it to be one of the artist's chief functions, as it should be his chief delight, to watch for the rare mood when she wafts aside the veil of the commonplace and shows us her inner soul in some bewildering vision of poetic beauty.

The Essentials of Lettering. By Thomas E. French and Robert Meiklejohn. 72 pp. 9x6. Ten full-page plates and 74 figures. Varsity Supply Co., Columbus, Ohio.

The second edition of this book, revised, enlarged and enriched, is "the best yet." How often students and young teachers ask for "the best single book" on some subject. Here is the best single book on lettering. It is best for the following reasons: The authors know the subject in its history, in its modern relations, and in its pedagogical aspects. The plates and figures are well drawn; the text is clear, concise, and adequate; it includes a full, classified bibliography of the subject. From the first sane announcement that "the foundation of lettering is the same for all users, whether the application be on a poster or on a mechanical drawing," to the last suggestion as to how "to shift a line after it has been inked in," the book is an absolutely reliable guide in mechanical and freehand lettering, isolated, or combined with ornament, from antique to art nouveau, straight away or in monograms, ciphers and marks. The well chosen examples of applied lettering deserve special commendation. The term, "Commercial Gothic" should be adopted everywhere at once. The book is well printed, and is designed with such good sense that it will lie open flat, for reference, above the sheet upon which one may be working, taking up the least possible room.

The Arts and Crafts in the Middle Ages. By Julia deWolfe Addison. 378 pp. 5 1-2x8. 75 illustrations in line, halftone and color. L. C. Page & Co. $3.

The name of the author of this book is in itself a guarantee of excellence. The text reveals a familiarity with original sources, a wisdom in selecting and

grouping the important items and a sympathy in the interpretation of the ancient documents, most welcome to the reader, be he practical worker in craft materials or particular lover of results. Thru it all runs a vein of quiet humor, a note of joy in modern life and the modern point of view. Consequently the reader is happy and optimistic, as he finishes the book, notwithstanding the final sentence. Superb handicraft not only has been, but is to be. The book is a roster of the master-craftsmen, and its illustrations recall some of their most famous masterpieces in gold, silver, and other metals, in enamel, in textiles, in wood, stone, and ivory, in parquetry and mosaic, and upon vellum. A bibliography and index add to the value of the book as a unit in one's working library.

Addresses and Proceedings of the National Education Association, Denver, 1909.

This book of a thousand pages, contains much on industrial education; by President Harvey of Menominee, Miss Gill of Washington, President Butterfield of Amherst, Dean Davenport of the University of Illinois, Commissioner Brown of Washington, Principal Burks of Albany, Commissioner Downing, and others in discussion. The Department of Manual Training reports addresses by the President of the Department, Mr. Addicott, by Mr. Monaghan, Secretary of the National Society for the Promotion of Industrial Education, Professor Clark of Leland Stanford, Miss Rich of Santa Barbara Normal, Professor Chamberlain of Pasadena, President Work of Denton, Texas, Mrs. Richards of Boston, and Dr. Salisbury of Whitewater, Wis. The Department of Art Education reports addresses by Miss Ellis of Cleveland, Mrs. Smith of Newcomb College, Mr. Carter of Denver, Superintendent Elson of Cleveland, and Mr. Henry Read of Washington. Professor Clark of Leland Stanford presents a report on University Entrance Examinations in Art.

Leading Facts of American History. By D. H. Montgomery. Ginn & Co., new edition.

Is of interest to teachers of art from the fact that in its illustrations it presents many good examples of wood engraving. To compare these with the usual halftone illustrations is an educational exercise, especially valuable to pupils of upper grammar and high school grade. "What is gained in speed is lost in power." "There are compensations in all things."

RECENT PUBLICATIONS

A SIENESE PAINTER OF THE FRANCISCAN LEGEND. By Bernard Berenson. A study of Stefano Sassetta, and a comparison of his frescos and panels with those of Giotto and Botticelli. John Lane Co. $2 net.

A HISTORY OF ARCHITECTURE. By Russell Sturgis. Volume II. This authoritative account of the development of architecture in all countries will be completed in three volumes. Baker & Taylor Co. $5 net.

HISTORY OF THE FAN. By G. Woolliscroft Rhead. A sumptuous volume giving a complete history of fans and fan-making, and containing numerous illustrations in color, halftone, etc. J. B. Lippincott Co. $25 net.

WINDOWS. By Lewis F. Day. The third edition, revised and enlarged, of an authoritative work about stained and painted glass, containing descriptions of the world's most famous windows. Illustrated. Charles Scribner's Sons. $7.50 net.

THE COLLECTOR'S HANDBOOK TO KERAMICS of the Renaissance and Modern Period. By William Cheffers. An abridged form of the author's "The Keramic Gallery," giving representations of the pottery produced in American and English factories. Charles Scribner's Sons. $1.50 net.

OLD ENGLISH COLOR-PRINTS. By Charles Holme. Special number of the "International Studio" containing forty reproductions in color of representative color-prints of the eighteenth century. John Lane Co. $3 net.

INDUSTRIAL EDUCATION. Published by the American Federation of Labor. A pamphlet of seventy pages, recording an investigation and a report "by a competent special committee," "the attitude of organized labor and others toward the problem," etc. This important document may be had thru the Society for the Promotion of Industrial Education, 20 West 44th St., New York City.

VOCATIONAL EDUCATION. This circular, issued by the New York State Education Department, by Arthur D. Dean, Chief of the Division of Trades Schools, is a reprint from the last annual report of the Commissioner. It deals with industrial education as it has taken shape in New York, in elementary and trades schools, and in evening trades classes. Mr. Dean is specific and far-sighted in his recommendations. He demands more time for drawing and the manual arts.

AN ART-CRAFT INDEX TO THE FEBRUARY MAGAZINES

PERTINENT ARTICLES

American Domestic Rugs, J. Lawton Kendrick, House Beautiful, p. 70.
Americanism in Sculpture as represented in the work of Bela Lyon Pratt, Frederick W. Coburn, Pallette and Bench, p. 95.
A New Departure in Photography, Robert Williams Wood, Century, p. 565.
An Old Circle, Ford Madox Hueffer, Harper's, p. 364.
A Raffia Landscape Basket, Gertrude P. Ashley, Palette and Bench, p. 115.
A Reading Journey through Egypt, VI, Temples and Tombs of Western Thebes, James H. Breasted, Chautauquan, p. 363.
Art of Homer Martin, The, Charles de Kay, Century, p. 587.
Arts and Crafts Exhibition Society: A Retrospect, W. T. Whitley, International Studio, p. 297.
A Young Breadwinner (Sir Thomas Lawrence), Fanny W. Marshall, St. Nicholas, p. 293.
Book of To-day and the Book of To-morrow, The, Harry Lyman Koopman, Printing Art, p. 413.
Boston Art Museum, The, Philip L. Hale, Scribner's, p. 253.
Boston Museum, The, Mary B. Hartt, Outlook, p. 203.
Cardboard Modelling, Felix T. Kingston, Practical Teacher, p. 443.
Carved Wood Clock Case, Charles Wilder Brittan, Palette and Bench, p. 111.
Charles Ricketts: A Commentary on His Activities, C. Lewis Hind, International Studio, p. 259.
Chicago's School Buildings, Cara Reese, Good Housekeeping, p. 206.
Cups, House Beautiful, p. 52.
Drawing in Public Elementary Schools, Denver, Col., Charles M. Carter, Practical Teacher, p .447.
Educative Value of Manual Training, S. Horace Williams, Manual Training Magazine, p. 252.
Ethical Values of the Manual and Domestic Arts, William Noyes, Manual Training Magazine, p. 201.
Exhibition of the National Society of Craftsmen, Craftsman, p. 586.
Ferdinand Engelmuller's Bohemian Landscapes, M. Glaser, International Studio, p. 290.
Frederick Remington: A Painter of American Life, Royal Cortissoz, Scribner's, p. 181.
Friends of the Family—The Teacher, Elia W. Peattie, Good Housekeeping, p. 179.
Furniture of an English Designer, Grace Aspinwall, Good Housekeeping, p. 285.
Greatest Pictures of the World, The, II, The Venetian School, J. H. Gest, Ladies' Home Journal, p. 16.
Hammered Metal Buckles, William Whitney Lewis, Palette and Bench, p. 115.
Historic Types of Architecture, VI, Phoenicia and Asia Minor, Lewis Frederick Pilcher, Chautauquan, p. 387.
History Lesson and Drawing, The, W. H. Elgar, Practical Teacher, p. 439.
Home Course in Drawing for Children, A, James Hall, Palette and Bench, p. 105.
Home-made Books and Covers, Sara B. Hill, Ladies' Home Journal, p. 35.
How Beauty and Labor are Interwoven in the Daily Life of Japan, M. L. Wakeman Curtis, Craftsman, p. 517.
Indian Blankets, Baskets and Bowls, Craftsman, p. 588.
Influence of the West on Modern Japanese Art, The, Yone Noguchi, Craftsman, p. 404.
Italian Ancestry of Colonial Furniture, The, Virginia Robie, House Beautiful, p. 55.
Janet Scudder—Sculptor, Leila Mechlin, International Studio, p. lxxxi.
Julius Olsson, Painter of Seascapes, A. G. Folliott Stokes, International Studio, p. 274.

Late A. G. Macgregor, The, An Appreciation, W. H. D., International Studio, p. 306.
Making of a Mural Painting, The, I, Kenyon Cox, Palette and Bench, p. 101.
Making of Metal Lamp Shades, The, Douglas Donaldson, Palette and Bench, p. 109.
Man and the Machine, The, Pre-Raphaelites and Their Influence upon Life, C. H. Ashbee, House Beautiful, p. 75.
Manet and Modern American Art, Walter Pach, Craftsman, p. 483.
Miniatures by Mabel Welch, F. A. King, International Studio, p. xcii.
Mother and Child, The Theme as Developed in the Art of Mary Cassatt, Gardner Teall, Good Housekeeping, p. 141.
National Academy of Design Exhibition, International Studio, p. ci.
National Society of Craftsmen Exhibition, International Studio, p. xcvii.
New Constructive Movement, The (three articles), Practical Teacher, p. 425.
Old English Colour Prints, W. E. Sparkes, Practical Teacher, p. 435.
Old West in Pageant, The, William Hard, Outlook, p. 182.
On the Painting of Snow, Walter L. Palmer, Palette and Bench, p. 90.
Pewter Collection, Antonio de Navarro, House Beautiful, p. 58.
Picture in Typography, The, A. L. Hennessey, Printing Art, p. 425.
Portrait busts of Courtenay Pollock, P. G. Konody, International Studio, p. xcix.
Relation of Photography to the Printing Art, The, III, The Application of Photography to Printing, Charles H. Caffin, Printing Art, p. 421.
Sculpture of Prince Paul Troubetzkoi, The, Achille Segard, International Studio, p. 266.
Should You Give People What They Want? Temple Scott, Printing Art, p. 416.
Strawberry Leaf in Decoration, House Beautiful, p. xviii.
Suggested Standard High School Courses in Wood-Turning, Pattern-making and Foundry Practice, Ray L. Southworth, Manual Training Magazine, p. 237.
Tied and Dyed Work, Catherine E. Suplee, Palette and Bench, p. 114.
Use of Colour in School, The, John Young, Practical Teacher, p. 456.
Visiting Manual Training Schools in Europe, III, Leicester and Sheffield, Charles A. Bennett, Manual Training Magazine, p. 215.
Where Embroidery Alone Serves to Kill Time, Felix J. Koch, Home Needlework, p. 7.

ILLUSTRATORS

Archer, McClure's, p. 383.
Arthurs S. M., Harper's, pp. 391, 395.
Bacher, Otto H., Century, pp. 590-593.
Batten, J. D., International Studio, p. 305.
Bayha, Edwin F., Ladies' Home Journal, p. 23.
Beaux, Cecilia, Century, frontispiece.
Becher, Arthur, St. Nicholas, pp. 337, 342.
Benda, Wladyslaw, T., Outlook, pp. 191-197.
Birch, Reginald, St. Nicholas, p. 320.
Blumenschein, E., American Magazine, pp. 513-514.
Booth, Hanson, Circle, pp. 77-79; Delineator, p. 113.
Borglum, Gutzon, Century, p. 600.
"Boz," St. Nicholas, p. 331.
Bracker, M. Leone, Ladies' Home Journal, p. 13.
Bredin, Christine S., Century, p. 494.
Brooke, L. Leslie, St. Nicholas, p. 332-335

Brown, Ford Madox, Harper's, pp. 368, 372.
Bull, Charles L., Circle, pp. 73, 74.
Carratt, Mary, Good Housekeeping, frontispiece, pp. 141-146.
Castaigne, Andre, Century, p. 621; McClure's, pp. 431, 434.
Caswell, E. C., Ladies' Home Journal, p. 32.
Chase, Joseph Cummings, Scribner's, p. 196.
Clark, Rose, St. Nicholas, p. 303.
Cleland, Thomas Maitland, Printing Art, pp. 429, 436.
Cole, Timothy, Century, p. 547.
Conacher, J., Scribner's, pp. 241-249.
Cort, Howard R., Delineator, p. 168.
Cox, Palmer, St. Nicholas, pp. 348-351.
Craig, Frank, Delineator, p. 117; Scribner's, p. 144.
Cravens, John L., Printing Art, p. 435.
Cravens, Junius S., Delineator, p. 165.
Desch, Frank, Harper's, pp. 411, 415.
Dicksee, Margaret, St. Nicholas, p. 294.
Dixon, Maynard, Good Housekeeping, pp. 192, 194.
Duncan, Walter Jack, McClure's, pp. 373-377.
Edwards, Edward, Printing Art, p. 431.
Edwards, Robert, Circle, pp. 81, 82.
Engelmuller, Ferdinand, International Studio, pp. 290-297.
Everett, Walter H., Ladies' Home Journal, p. 33.
Fink, Denman, Harper's, pp. 449, 453.
Fisher, Harrison, Ladies' Home Journal, p. 15.
Flagg, James Montgomery, American Magazine, pp. 531, 566, 568, 569; McClure's, p. 421.
Foster, Will, Delineator, p. 121.
Foster, William Harnden, Scribner's, frontispiece, pp. 159-166.
Gebhardt, Eduard von, International Studio, pp. 318-320.
Gerard, Baron Francois-Pascal, Century, p. 547.
Giovanni, Bellini, Ladies' Home Journal, p. 17.
Glackens, W., McClure's, pp. 392-396.
Guerin, Jules, Century, pp. 502, 509, 515.
Hale, Walter, Harper's, pp. 399-406.
Hals, Franz, International Studio, p. 309.
Hambidge, Jay, Century, p. 535; McClure's, pp. 452-461
Hassam, Childe, Craftsman, p. 596.
Hitchcock, Lucius W., Harper's, pp. 330, 338, 342.
Hokusai, Craftsman, p. 519.
Jones, Wilfred, Delineator, p. 165.
Keller, Arthur I., Century, p. 528; Delineator, p. 119; Good Housekeeping, pp. 164-169
Ladies' Home Journal, p. 11.
Kleinschmidt, Carl, Delineator, pp. 84, 85.
Lawrence, Sir Thomas, St. Nicholas, pp. 296-298.
Lester, Charles F., St. Nicholas, pp. 314, 315.
Leyendecker, Frank X., McClure's, cover.
Macgregor, A. G., International Studio, pp. 306-308
Manet, Edouard, Craftsman, frontispiece, pp. 487-490.

Martin, Homer, Century, p. 589.
Masters, F. B., St. Nicholas, pp. 305, 307.
McConnell, Emlen, Harper's, pp. 355-361.
McQuinn, Robert, Delineator, borders and initials; Printing Art, p. 430.
Meylan, P. J., Ladies' Home Journal, p. 10.
Mohr, Jean, Good Housekeeping, pp. 188, 189.
Newcomb, Molly, St. Nicholas, cover.
Olsson, Julius, International Studio, pp. 274-282.
O'Neill, Rose, Ladies' Home Journal, p. 29.
Palmer, Walter L., Palette and Bench, supplement, pp. 90-92.
Pepper, Charles Hovey, World To-day, frontispiece.
Peters, C. F., McClure's, pp. 462-470.
Pfeifer, Herman, Circle, pp. 85, 86; Ladies' Home Journal, p. 19.
Pollock, Courtenay International Studio, pp. xcix, c.
Post, Charles J., Century, pp. 607-616.
Pratt, Bela, Palette and Bench, pp. 95-96.
Preston, May Wilson, Good Housekeeping, pp. 174, 178.
Pullinger, Herbert, Printing Art, frontispiece.
Rae, John, Circle, pp. 71, 72.
Ralyea, C. M., St. Nicholas, p. 327, 328.
Remington, Frederick, Scribner's, pp. 181-195.
Ricketts, Charles, International Studio, frontispiece, pp. 260-265.
Robinson, David, American Magazine, pp. 485, 487.
Rosemeyer, B. J., Ladies' Home Journal, p. 7.
Rowe, C., Harper's, p. 367.
Sarka, Charles, American Magazine, pp. 459-465.
Schneider, Otty, International Studio, p. 327.
Schoonover, F. E., Harper's, pp. 432, 435.
Schuyler, Remington, St. Nicholas, p. 363.
Scudder, Janet, International Studio, pp. lxxxii-lxxxviii, 259.
Simon, Francois, International Studio, p. 321.
Smith, Howard E., Harper's, frontispiece, p. 381.
Solon, Leon V., Outlook, frontispiece, pp. 151-156.
Sorolla y. Bastida, Joaquin, McClure's, frontispiece, p. 366.
Stearns, Fred, House Beautiful, cover.
Steele, Frederick Dorr, Delineator, pp. 116, 117.
Stick, Frank, St. Nicholas, frontispiece, p. 291.
Taber, I. W., St. Nicholas, pp. 299, 301, 313.
Taylor, Horace, International Studio, pp. 312, 313.
Titian, Ladies' Home Journal, p. 16.
Tittle, Walter, Circle, cover.
Toft, Albert, International Studio, pp. 310, 311.
Townsend, Harry, American Magazine, pp. 517, 520; Harper's, pp. 465, 469.
Trood, W. H., St. Nicholas, p. 344.
Troubetzkoi, Prince Paul, International Studio, pp. 267-273.
Varian, George, St. Nicholas, pp. 309, 311, 353, 357.
Veronese, Paul, Ladies' Home Journal, p. 17.
Walker, A. B., Harper's, p. 481.

Weber-Ditzler, Charlotte, Delineator, cover.
Welch, Mabel, International Studio, pp. xcii-xciv.
Wells, William, International Studio. p. 315.
Wildhack, Robert J., American Magazine, cover.
Williams, C. D., Ladies' Home Journal, p. 9; McClure's, pp. 439-446.
Williams, J. A., Ladies' Home Journal, p. 20.
Williamson, H. G., American Magazine, pp. 557-560.
Wireman, Eugenie M., St. Nicholas, p. 343.
Wyeth, N. C., Century, pp. 595, 596.
Yohn, F. C., Scribner's, pp. 168-176.
Young, James Seinor, Printing Art, p. 434.
Zorn, Anders, International Studio, p. 266.

COLOR PLATES

"A Farmyard in Egerland, Bohemia," Otty Schnieder, International Studio, p. 327.
"All of a sudden something brown shot out by the boiler like a big jack-rabbit," William Harnden Foster. Scribner's, frontispiece.
A Race, William H. Foster, Scribner's, p. 160.
"Between the Sunset and the Moon," Julius Olsson, International Studio, p. 275.
"Chief Warder of the Frozen North," Herbert Pullinger, Printing Art, frontispiece.
Court of the Omayyade Mosque, Damascus, The, Jules Guerin, Century, p. 509.
Cover design, Frank X, Leyendecker, McClure's.
Cover design, C. P., Good Housekeeping.
Cover design, Leon V. Solon, Outlook.
Cover design, Fred Stearns, House Beautiful.
Cover design, Walter Tittle, Circle.
Cover design, Charlotte Weber-Ditzler, Delineator.
Cover design, Robert J. Wildhack, American Magazine.
"Henceforth David prospered in a humble way," Howard E. Smith, Harper's, frontispiece.
"It will be safer for you in the end not to know any of our names," Lucius W. Hitchcock, Harper's, p. 342.
"L'hiver," Francois Simon, International Studio, p. 321.
Market-place, Damascus, The, Jules Guerin, Century, p. 515.
Meeting the Limited, William Harnden Foster, Scribner's, p. 164.
Morning and Evening, Wheatley, Gillbank, Practical Teacher, pp. 435, 438.
Petunias, Paul Putzki, Keramic Studio, supplement.
Pupils' drawings, Practical Teacher, pp. 455, 458.
Scooping water, William Harnden Foster, Scribner's, p. 159.
Stencilled sash curtains, Good Housekeeping, p. 255.
Sweetmeat Bazaar, Damascus, The, Jules Guerin, Century, p. 502.
"The Empty Armor began to walk up and down the cell," F. E. Schoonover, Harper's, p. 432.
"The Holy Women and the Angel of the Resurrection," Charles Ricketts, International Studio, frontispiece.
"The Old Garden," William Wells, International Studio, p. 315.
The People of Many Lands, II, A Girl of Holland, Charles Hovey Pepper, World To-day, frontispiece.
"The Poplars," Ferdinand Engelmuller, International Studio, p. 293.

"There are a hundred men beating the mountain to find you," Lucius W. Hitchcock, Harper's, p. 338.
"To look once more into kindly human faces and steal away," Lucius W. Hitchcock, p. 330.
White World, The, Walter L. Palmer, Palette and Bench, supplement.

NOTABLE DESIGNS

American Domestic Rugs, House Beautiful, pp. 70, 72.
Apron with Stenciled Decoration, Home Needlework, p. 58.
Bookbindings, International Studio, pp. 298-303.
Book Holder, Manual Training Magazine, pp. 280-281.
Borders and Initials, Robert McQuinn, Delineator.
Brass Work Mallet, Manual Training Magazine, p. 285.
Carved Wood Clock Cases, Palette and Bench, pp. 112, 113.
Chairs, Good Housekeeping, p. 284.
China Decoration, Keramic Studio, pp. 206, 217-224.
Chippendale Furniture, House Beautiful, p. 55.
Collar and Button Box, Manual Training Magazine, p. 284.
Couch Pillows, Home Needlework, pp. 10-12.
Crocheted Cloak, Good Housekeeping, p. 253.
Crocheted College Robes, Home Needlework, p. 35.
Current Decorative Design: Page Borders, etc., Printing Art, pp. 429-431.
Embroidery, Delineator, pp 142, 143; Home Needlework, pp. 6-15.
Enamelled Glass Vessels, International Studio, p. 301.
Home-made Books and Covers, Ladies' Home Journal, p. 35.
Illuminated Pages, International Studio, pp. 303, 304.
India Stool, Suburban Life, p. 96.
Irish Crochet, Home Needlework, pp. 17, 18, 19.
Ivory Box with Brass Mountings, International Studio, p. 302.
Leather Applique, Good Housekeeping, p. 252.
Leather Boxes, International Studio, pp. 300, 302.
Leather Card Case, International Studio, p 300.
Library Lamp, Manual Training Magazine, p. 282.
Metal Lamp Shades, Palette and Bench, pp. 109-111.
Panels, International Studio, p. 299.
Paper Kites, International Studio, p. 325.
Petunia Designs for China, Keramic Studio, pp. 207, 208, 216-224.
Piano Bench, Manual Training Magazine, p. 283.
Pierced Brass, Good Housekeeping, p. 251.
Pierced and Repousse Brass Work, Home Needlework, pp. 54-56.
Plant Stand, Manual Training Magazine, p. 279.
Raffia Landscape Baskets, Palette and Bench, pp. 115, 116.
Revolving Mirror, International Studio, p. 302.
Stenciled Borders, Home Needlework, p. 27.
Stenciled Sash Curtains, Good Housekeeping, p. 255.
Temple of Isis at Petra, The, Harper's, p. 424.
Toys Carved in Wood, International Studio, pp. 324 326.
Umbrella Stand, Manual Traitining Magazine, p. 264.
Wall Furniture—lamp bracket, etc., Keramic Studio, p. 214.

THE SCHOOL ARTS GUILD

I WILL TRY TO MAKE THIS PIECE of WORK MY BEST

JANUARY CONTEST

AWARDS

First Prize, Book, a "School Arts Kit," and Badge with gold decoration.

*Tena Press, IX, 40 Brackett St., Portland, Me.

Second Prize, a box of Munsell Colors, Wadsworth, Howland Co., and Badge with silver decoration.

Vernon Cincinato, VII, 136 S. Madison St., Stockton, Cal.
Paul Fenton, IX, Easthampton, Mass.
Lois Miles, V, 3425 Lombard St., Everett, Wash.
Hazel Snyder, V, 3506 Broadway, Everett, Wash.
*John R. C. Stard, VII, Wendell Phillips School, Boston, Mass.

Third Prize, a copy of "Blackboard Drawing," published by The Davis Press, and Badge.

Mondel Butterfield, IV, Academy St. School, Oneonta, N. Y.
Jennie Cobb, VIII, 14 Winter St., Portland, Me.
Florence M. Heritage, High School, Langhorne, Pa.
Elsie Hoffman, ————
Jennie Jerd, Randolph, Vt.
James O'Connell, IV, Prospect St. School, Northampton, Mass.
George Peterson, II, Special, Garfield, ———
Katherine Reed, VI, Methuen, Mass.
George Savary, V, 45 Plimpton St., Southbridge, Mass.
Inez Tress, VIII, Shabbona School, Ottawa, Ill.

Fourth Prize, The Badge.

Frank Allard, IV, Prospect St. School, Northampton, Mass.
Dorothy Black, III, 2 Quimby St., Augusta, Me.
Lily Castle, III, Box 584, Stockton, Cal.
Harry Codling, III, Mt. Vernon, Ia.
Earl Cole, IV, Wilkes-Barre, Pa.
Lucien Cousineau, III, Dominican Academy, Fall River, Mass.
Mabel Goerlich, V, 3701 Smith Ave., Everett, Wash.
Rolla Griffin, VI, Washington School, Everett, Wash.
Ernest Haskell, IV, 8 Noyes Place, Augusta, Me.
*Lillian Lawless, V, Florence, Mass.
Kari Lund, Everett, Wash.
Ruby Luther, IV, 510 Lafayette St., Sioux City, Ia.

*A winner of honors in some previous contest.

Arthur Nielsen, III, Kirkwood School, Clinton, Ia.
Marguerite O'Brien, Jefferson School, Ottawa, Ill.
Harry Pomeroy, V, Haydenville, Mass.
Rudolph Rauch, V, Florence, Mass.
Beatrice Regnier, IX, 9 Hale's Court, Lowell, Mass.
Alfred Rohl, 835-35th St., Oakland, Cal.
Lewis Silva, VII, Provincetown, Mass.
*Levi Talbot, IV, Pleasant St., Westerly, R. I.
Stella Whitton, IV, 37 Old Terrace St., Bellows Falls, Vt.
Alberta Wilkes, VI, 402 E. Rose St., Stockton, Cal.
Eleanor Williams, III, 80 Gage St., Augusta, Me.

Honorable Mention

Annie Anthony, Provincetown
Raymond Bartman, Everett
George Benway, Northampton
Gertrude Brainard, Oneonta
Winifred Burtt, Methuen
Anna Butler, Northampton
Grace Carr, Everett
Luason Clarke, Westerly
Beatrice Cloutier, Augusta
*Angela Crowley, Fall River
Eva G. Ellis, Augusta
Eddie Ferare, Westerly
Ernest Fieldhouse, Methuen
George Finkbohnes, Stockton
Anne Fisher, Sioux City
George Fowler, Everett
Vincent Fox, Ottawa
Josephine Garvulenska, Easthampton
Ethel Goodman, Beaver Dam
Harry Grant, Augusta
Julia Guernsey
Clifford Hagerman, Everett
Marion Hayes, Florence
Henry Hershom, Boston
Doris L. Hird, Lowell
Vivian Hobbs, Sioux City
Signe Holmgren, Rockport
Donald B. Hull, Ridgewood
Leona Jacobsen, Sioux City
Ora Joslyn, Haydenville
Marion Kienle, Easthampton
William Kilborn, Portland
Vera Kuebler, Mt. Vernon
Mildred Lanphere, Westerly
Ida Lavallee, Globe Village
Annie Lavene, Clinton
Sarah Lowe, Wilkes-Barre
Lewis Marks, Provincetown
Ralph Meigs, Bellows Falls
Joseph Neushotz, Lowell
Agnes Novacek, Haydenville
Emily Novotny, Northampton
Helma Olden, Sioux City
Marie Olden, Sioux City
George Peterson, Everett
Herbert Pickles, Methuen
Ralph Rath, Ottawa
Theodore Samsel, Everett
Thomas Sanders, Westerly
Mabel A. Shriner, Langhorne
Joseph Shultz, Wilkes-Barre
Eula Smith, Augusta
James Stanton, Everett
Ruth Stocks, Leavenworth
*Grace Strong, Easthampton
Byrl Swisher, Archbold
Minnie Tate, Beaver Dam
Ruth Thompson, Southampton
Oscar Tom, Sioux City
Gerald Wardwell, Augusta
Gladys Wentworth, Bellows Falls
*Ruth Wickham, Beaver Dam
May Yelland, Stockton
Grace Young, Sioux City

*A winner of honors in some previous contest.

Model and object drawing is still the problem. While the work submitted presented fewer vagaries than usual in the subject matter, and less fantastic light and shade, the actual delineation of perspective effects was scarcely, if any, better than in the work submitted a year ago. Model and object drawing is evidently not yet a vital subject from the point of view of the children.

Fall River, Mass., February, 1910.

Dear Mr. Bailey:

Never before have the pupils gone to their Drawing with the interest they have shown since hearing that one of their schoolmates is the fortunate winner of a first prize. In the seventh grade especially, the enthusiasm is at its height. This makes my work ever so much easier, for they are an unusually difficult class to deal with.

Gabrielle has just received her pictures of Japanese birds and animals. She is carried away with the beauty of the prints, and all the other girls are beginning to realize that it is well worth while to "try one's very best."

Gratefully yours,

A Dominican Sister.

Please remember the regulations:

Pupils whose names have appeared in The School Arts Book as having received an award, must place on the face of every sheet submitted thereafter a G, for (Guild) with characters enclosed to indicate the highest award received, and the year it was received, as follows:

These mean, taken in order from left to right, Received First Prize in 1905; Second Prize in 1906; Third Prize in 1907; Fourth Prize in 1906; Mention in 1907. For example, if John Jones receives an Honorable Mention, thereafter he puts M and the year, in a G on the face of his next drawing submitted. If on that drawing he gets a Fourth Prize, upon the next drawing he sends in he must put a 4 and the date, and so on. If he should receive a Mention after having won a Second Prize, he will write 2 and the date on his later drawings, for that is the highest award he has received.

☞Those who have received a prize may be awarded an honorable mention if their latest work is as good as that upon which the award is made, but no other prize unless the latest work is better than that previously submitted.

☞The jury is always glad to find special work included, such as language papers upon subjects appropriate to the month, home work by children of talent, examples of handicraft, etc.

☞Remember to have full name and mailing address written on the back of each sheet. Send the drawings flat.

☞If stamps do not accompany the drawings you send, do not expect to obtain the drawings by writing for them a month later. Drawings not accompanied by return postage are destroyed immediately after the awards are made.

☞A blue cross on a returned drawing means "It might be worse!" A blue star, fair; a red star, good; and two red stars,—well, sheets with two or three are usually the sheets that win prizes and become the property of the Davis Press.

"AN APRIL VIOLET"

by

JAMES HALL

One of the drawings in the New Nature Packet, "Spring Growths," published by The Davis Press, Worcester, Mass.

The School Arts Book

AN ILLUSTRATED MONTHLY MAGAZINE for THOSE INTERESTED IN DRAWING *and the* ALLIED ARTS

HENRY TURNER BAILEY
EDITOR

September to June inclusive $1.50 a year, in advance

VOL. IX APRIL, 1910 NO. 8

Entered at the Post Office at Worcester, Mass., as second class matter, August 17, 1903

CONTENTS

A Transparency of Goldfish — Gertrude I. Bigelow
May Baskets — Helene J. Chaplain
School Use of the Stereopticon — Charles B. Jennings
Garden Furniture — Charles T. Scott
Chautauqua — George W. Eggers
Color, III—A Color Standard — Louis W. Wilson
Annotated Outlines, May, with Illustrations, Reference Material
The Workshop—Woodworking—Indian Club Swinger — Frank G. Sanford
Weaving—A Hand Bag and a Dicky — Katharine F. Steiger
Needlework—Daisy Costume — Blanche E. Hyde
Metalry—Pendant — Augustus F. Rose
Editorial: Patriots' Month; Arbor Day; Notes — Editor
Helpful Correspondence School Arts Guild The Arts Library
Reliable Advertisements Trade News

Published by THE DAVIS PRESS, Worcester, Mass.

COPYRIGHT, 1910, BY THE DAVIS PRESS. ALL RIGHTS RESERVED.

BULLETIN

Dr. William H. Elson, Superintendent of Schools, Cleveland, will contribute the leading article in the May number.

Pottery Craft in School, by Mr. Cheshire L. Boone, of Montclair, N. J., Damascus Inlaying, by Miss Lanice Paton, Beirut, Syria, Doily Designs, by Miss Grace Ripley of the Boston Trade School for Girls, are also among the next month's attractions, all richly illustrated.

The May Number will be still further enriched with facsimile reproductions in color of the work of Mr. James Hall of New York.

The Editor begs Miss Birchall's pardon for attributing to her the rhyme by Sir Walter Raleigh.

The School Arts Book

Vol. IX APRIL, 1910 No. 8

A TRANSPARENCY OF GOLDFISH

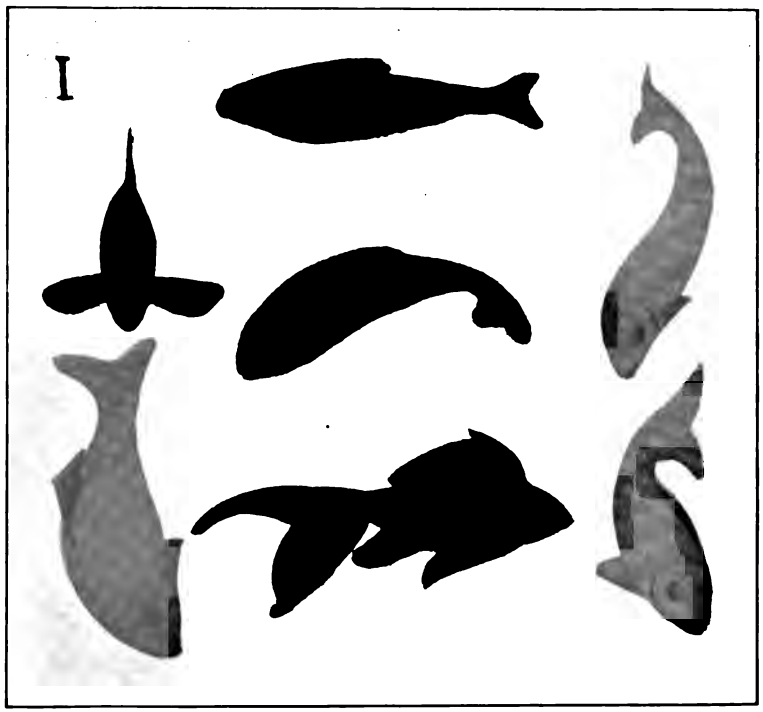
WHAT is there that meets with a more enthusiastic welcome from little children than a sheet of paper and a pair of scissors? Nothing, I believe, unless a box of crayons or a pan of paint be added to the assortment. What could be more pleasing to a child after she has heard the story of Red Riding Hood told and re-told time after time until she herself can be a little Red Riding Hood with John for the wolf, than to be given the opportunity to create a Red Riding Hood—the woods and the wolf and the very house grandma lived in and the very bed in which Red Riding Hood found the wolf.

With very few suggestions as to what to do first (the starting point is always hard) illustrative work of this sort can be individually worked out by every child for seat work. The child's delight and satisfaction, when all is completed, will rival that of a writer when his first story appears in print. Such work is valuable to every child in many ways, but chiefly because they have been allowed to create. Herein is the source of their greatest pleasure.

In my little class we had all become interested in goldfish until, swamped by this enthusiasm and stimulated by a suggestion offered me by a Kindergartner, I announced one morning that we were each going to make a globe of goldfish. The delight of the children at the mere suggestion was quite enough, but it was most complete when every child had made his own globe of fish to take home to mother. I will tell you how it was made and then you may experience the same delight with your children.

First. Draw upon the board goldfish of different kinds, as much simplified as possible, in all conceivable positions. See

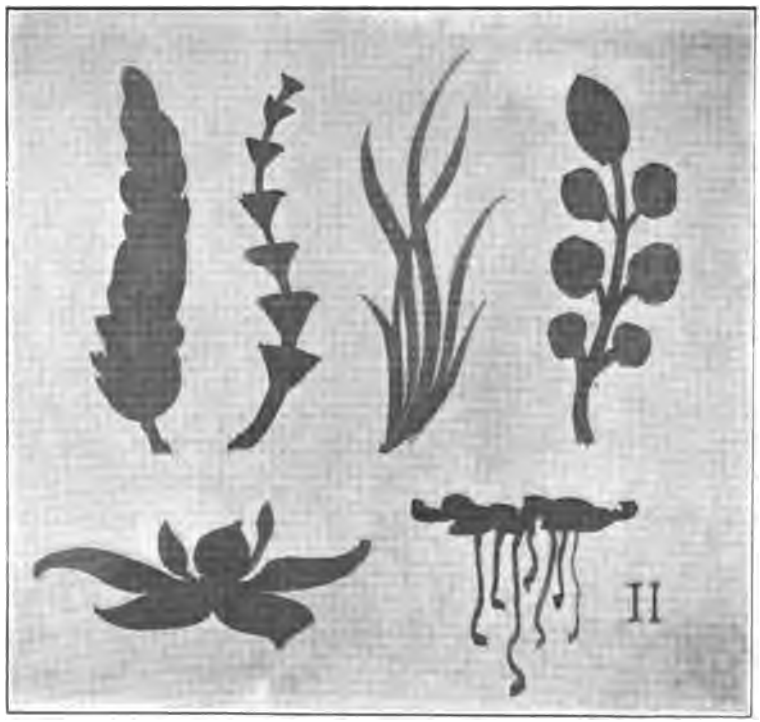
Plate I. Give to every child, paper and colored crayons and let them draw and cut goldfish until three or four good ones in different positions are obtained.



Forms of different kinds of goldfish in various positions, to be cut from paper and colored.

Second. After talking about the food fish need, draw on the board pictures of the weeds and grasses they feed upon, as much simplified as possible. See Plate II. Have the children draw and cut some of these as well as they can.

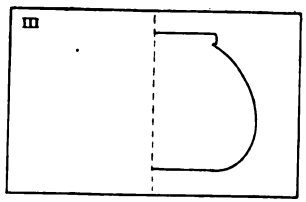
Third. Give to every child two sheets of 6″ x 9″ gray drawing or bogus paper on which has been traced the outline of half



Various aquatic plants reduced to simple forms for paper cutting and coloring.

a fish globe, as in Plate III. Fold on the dotted line. This furnishes a cutting lesson for seat work another day.

Fourth. This part of the work should be taken in a drawing period as it needs careful supervision. Give to every child two sheets of Japanese transparent paper cut 5 1-2″ x 8″, and some



paste. Paste one of these sheets onto each of the sheets 6″ x 9″ from which the children have cut away the globe. Paste the fish and grasses onto the wrong side of the globe sheets, so that they will be seen thru the transparent paper. Next paste together the two sheets of 6″ x 9″ and you have completed the transparency as shown in Plate IV. When hung in the window this is most effective and pleasing to the children.

Plate IV. The goldfish jar completed in the form of a transparency.

Caution. Before giving the lesson a teacher should construct a model herself that she may realize any difficulty that may arise, and so anticipate it and perhaps guard against it with the children.

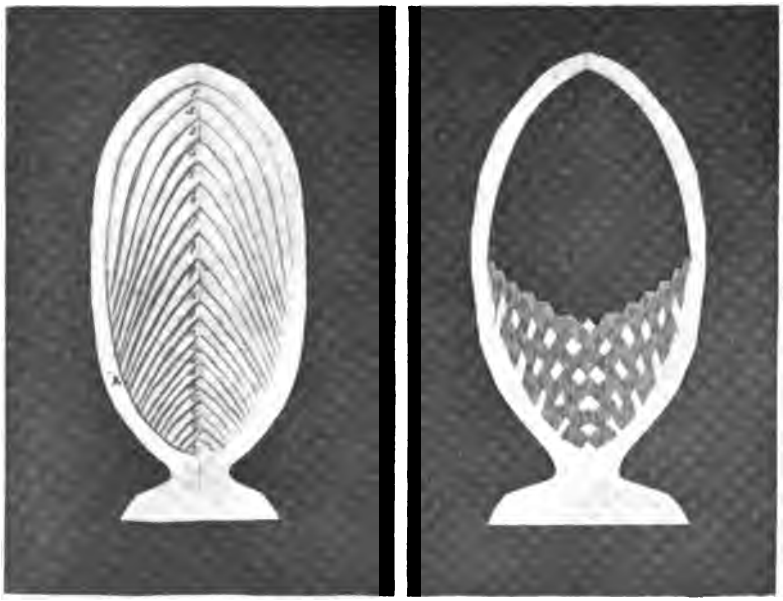
GERTRUDE I. BIGELOW
Claflin School
Newtonville Mass.

MAY BASKETS

I. A WOVEN BASKET

FOR May baskets a tough paper is desirable. It can be made more effective by tinting one side with colored crayon or water color.

For the woven basket shown in Figure II, an oblong piece

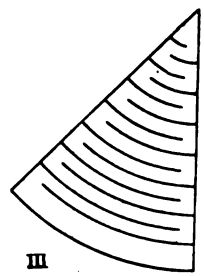


Figures I and II. The woven basket before and after weaving.

of paper is required. Fold the paper down the center and cut it into the form of an ellipse with an added base for the bottom of the basket, as shown in Figure I. About a quarter of an inch inside the edge of the ellipse draw a line, A, to indicate the width of the handle and the edge of the basket. Draw lines as marked (1, 2, 3, etc.) on the doubled paper, from the folded edge to the

edge line, making the strips wider at the fold than at the edge; the number of cuts determines the fine or coarse weave of the basket.

To facilitate dictation, number the strips. Beginning with No. 1 skip over three strips and draw or weave No. 1 under No. 5; skip three more and weave it under No. 9; skip over three strips and weave it under No. 13; over three strips and under No. 17, etc. Push the strip well over to the edge line.



III

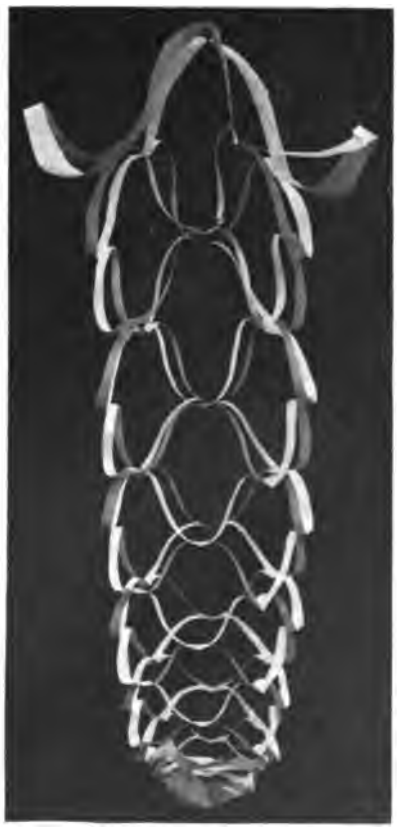


Figure IV. The net basket distended ready to receive flowers.

Now take the middle strip of the top group which is No. 3. Pass it over No. 4, No. 5, and No. 6, and under No. 7; over No. 8, No. 9, and No. 10, and under No. 11, etc. Next take No. 5, pass it over three strips and under the fourth, etc. Then No. 7 in the same way, and so on till the front half of the basket is finished.

The strips which remain loose at the back are then woven in and out in the usual manner; if the work is cor-

rectly done, the basket will open without obstruction all the way down to the edge line.

II. A DROP BASKET OR NET

Fold a circle or a square three times, to half, quarter, and eighth. The younger children should draw lines in pencil before attempting to cut, as shown in Figure III. The closer the cuts are to one another, and the nearer to the edge, the more delicate and the longer the net will be; but to achieve such a result requires some practice in handling scissors, and a suitable paper,—strong but not thick. After unfolding the cut paper, place something heavy, such as a small marble, in the center to cause the net to lengthen out, as shown in Figure IV. The open meshes may then be filled with light flowers such as buttercups or violets.

HELENE JENSEN CHAPLAIN
Stamford, Connecticut

SCHOOL USE OF THE STEREOPTICON

A FEW years ago I had the great privilege of crossing the Atlantic and of visiting several of the countries of Europe. While going up the Rhine, which was even more beautiful than I had supposed, I was impressed with this thought that came to me, "How poor and inadequate are words to convey ideas to children! I must have a stereopticon."

When I arrived in New York, I saw this paragraph in a New York paper: "The City of San Francisco has just appropriated $3,000 for the purchase of a stereopticon and slides, and the employment of a special teacher in geography, for the benefit of the children in the public schools." At the first meeting of my Board, I stated my case to them, and they promptly provided me with a first-class stereopticon and slides.

I showed pictures to the children several times myself, and invited others to do so, but I was not satisfied with that way of doing it, and set about devising some plan whereby I might make a class exercise of it. I finally evolved the following, which is original, so far as I know, and which has proved very satisfactory.

When the subject has been chosen, say the Rhine for instance, I procure by purchase or hire about forty slides, and show one to each member of the class. I then require each pupil to look up the subject of his slide from books in the library, and to write an account or description of it in the best possible English. After the teacher has approved of it, each boy and girl commits that which he or she has written to memory, and is drilled by the teacher of reading to recite it well.

When Stereopticon Day arrives, and the school has assembled to see the pictures, each pupil, as the picture which he has studied is thrown upon the screen, rises in the dark, and recites the explanation of the slide. Instead of one lecturer, there are forty; one new voice for every new picture. The children are delighted with it.

On the evening of the same day, the parents are invited, and the pictures are shown again. The hall is always filled, and there is no difficulty in securing funds for all the slides that may be needed.

CHARLES B. JENNINGS
Superintendent of Schools
New London, Conn.

GARDEN FURNITURE

THE making of successful garden furniture in cement requires a few simple tools, a modest outlay for materials; but a good deal of skill, taste, and patience.

An outfit for reasonably important work should include: a bag of good Portland cement, a half barrel or so of clean sharp sand, rather fine, about one hundred pounds of modeling clay, a pint of orange shellac in alcohol, a half pint of lard oil, three or four stearine candles, a half barrel of plaster of Paris for casting, some burlap (old sacks will do), a dozen old bricks, and a tight board platform on which to mix cement. The tools needed are: a spade, a steel plasterer's trowel, a small pointing trowel, a steel tool or spatula such as plaster workers use, Fig. 6, a thin steel pallet used in finishing pottery, Fig. 6, some wood blocks of various sizes, a couple of brushes for shellac and lard oil, a pair of ten-cent canvas gloves, a small round wooden mallet used by stone carvers, Fig. 6, two eight-foot lengths of light iron chain, and two galvanized iron turn-buckles. Some 1-4 inch crushed stone is useful but not necessary.

The round garden pot embodies most of the principles involved in this work, therefore it would perhaps be the best to begin with. The vase attempted should be perfectly plain without ornament or handles, about fifteen or eighteen inches high. The shapes shown in Figure 2 are easy to make and will not burst from freezing.

The design should be drawn full size in elevation, and a templet, Fig. 1, of tough, heavy cardboard, cut from a tracing of the outline.

Now on top of a stand or table of convenient height, draw a circle the size of the bottom of the vase, and about six inches outside of that draw a larger circle on the same center.

If the modeling clay is of the proper consistency, build within the inner circle a pile of bricks, some two or three inches smaller than the outside dimensions of the proposed vase. Soft clay

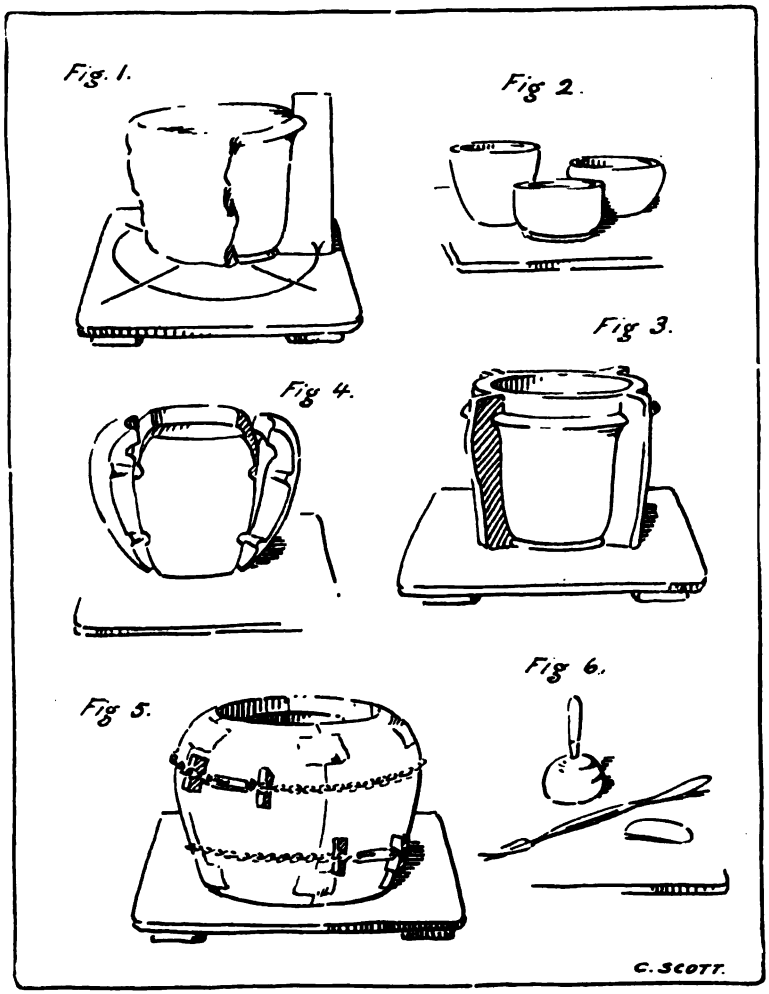
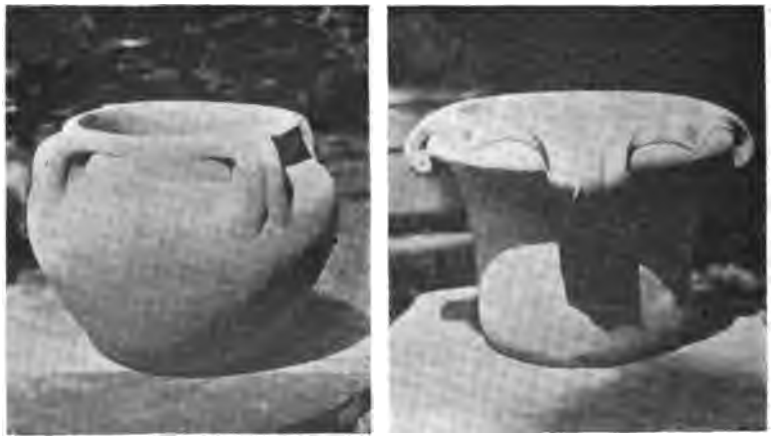


Fig. 1.
Fig 2.
Fig 3.
Fig 4.
Fig 5.
Fig 6.
C. SCOTT.

should be used between the wet bricks to keep them in place. This pile of bricks acts as a core to the model, saving material.

Now coat the core with clay approximating the final shape of the vase. If the bottom of the templet has been cut at right angles to the vertical axis of the vase, it may be placed in position, the bottom of the outline touching the inner circle; and after



Examples of garden vases manufactured by students of the Pennsylvania Museum School of Industrial Art.

marking the point where the templet crosses the outer circle, it can be moved around on these lines to test the shape of the vase.

To make the mould in which to form the cement reproduction of the model, beat out a number of flat strips of clay about three inches wide and one inch thick, to be used as "fences" to control the plaster.

The mould is to be made in four pieces, Fig. 4, two opposite sides first, then the remaining pair filled in between.

As the thickness of the cement vase will be about one inch, a circle must be drawn on the flat solid top of the model about that distance back from the outside edge.

Carefully remove the clay inside of this circle to the depth of a quarter of an inch or so, working back two or three inches toward the center. If one of the strips of clay be now set on edge around this groove, a neat joint will be formed with the top of the model and will allow the mould to extend over, in order to form the thickness or rim of the cement vase. Divide the vase into four equal parts by means of vertical lines lightly drawn.

Press the edge of a clay strip firmly against the side of the model along one of the vertical division lines, being careful to have the thickness of the strip to one side of the line. Place the next strip along a second vertical with its thickness on the opposite side of the line.

Carefully smooth these "fences" or strips on the sides next the lines, so that they form a clean right angle with the model.

They may be supported at intervals along the back by lumps of clay, and should extend from the stand or platform to the fence which encircles the top of model, Fig. 3. If carefully done, exactly one-quarter of the model will be inclosed by these fences.

Now after inclosing the opposite side of the model in the same manner, give both sides, the surrounding fences, and the board platform, a coat of lard oil and you are ready to mix plaster.

Into a bowl or pan holding about eight quarts, put water till three parts full.

Sift the plaster slowly thru the fingers or sieve into the water until the settled plaster can be felt within an inch or so of the surface. Do not stir the plaster while sifting it in, but run the hands thru it afterward squeezing out all the lumps.

The mixture should be of the consistency of rich cream. While the plaster stands for a moment, cut a piece of burlap slightly smaller but of the same general shape as a quarter of the vase.

Resting the bowl on the edge of the stand or platform,

Decorated garden pots manufactured by students of the Pennsylvania Museum School of Industrial Art.

with the hands slop the plaster gently over the surface of one of the enclosed quarters of the model, working from the top downward until evenly coated.

Pay no attention to the excess plaster gathering at the bottom till after the surface is covered, as it may then be scraped up with the steel pallet or small trowel and plastered evenly over the mould.

As the plaster hardens quickly, start with the creamy mixture so that it is not too stiff when finishing the coating.

The first bowl of plaster should form a layer about one inch thick. When the second bowl has been mixed, dampen the piece of burlap and dip it in the fresh plaster till saturated. Spread it evenly over the first coating to strengthen the mould. Now build up as before till the mould is about three inches thick all over.

Twist some burlap into six-inch lengths, embed the ends in the back of the mould, and handles will be formed facilitating the removal of the mould.

As the opposite of the model has been similarly prepared proceed to cover it in the same way. Shape the back of the sections neatly and remove all plaster from the table.

In about half an hour the fences may be removed, exposing the edges of the sections. Do not remove the one around the top. Using a long, sharp knife trim the edges of the mould carefully, in order to form a neat joint with the next piece.

Fill air holes, if any, with plaster; then cut a notch in the edge of each section, several inches from the top and another the same distance from the bottom; repeat on the opposite edges till each section has four notches, Fig. 4.

The plaster which forms the last two sections will run over into these notches and form lugs, which will enable the pieces to be readily assembled, Fig. 4.

Look over the exposed surfaces of the model; clean and true them up, carefully removing all traces of the clay fences.

Give the edges of the mould a coat of shellac and, when dry, the whole of the exposed portions and edges a coat of lard oil.

Cut burlap, mix plaster and form the last two sections of the mould. In five or six hours the joints of the mould may be scraped till the line of shellac appears; then the fence at the top having been previously removed, the two sections last made may be taken off the model by pulling at the handles and jarring the top with the fist. Remove the other two and look them all

over very carefully; fill all air holes with plaster and model off evenly while wet, remove any excrescences, and give the whole inside two rather thin coats of shellac allowing time to dry between the coats. The mould may now be assembled, (provided the shellac is dry), on a flat slab or table.

An ornamental outdoor flower box by a student of the Pennsylvania Museum School of Industrial Art.

Open a link at each end of the chains, forming hooks.

Screw the hooks on the turn-buckles out to their full extent: hook the chains into the swivel-eyes on the turn-buckles and place them loosely about the mould, pass them around the large hooks and adjust their length by hooking them back around the mould.

Blocks of wood must be placed under the hook and under the swivel-eye of each turn-buckle so as not to bind against the vase when screwed up tight, Fig. 5.

When the chains are properly adjusted and tightened by turning the buckles, cut pieces of burlap the size of the hand, dip them into liquid plaster and stick them firmly across the joints of the mould, above and below the chains, Fig. 5. When set, turn the entire mould over on its side and see if the joints come evenly together. Bring them parallel, if uneven, by scraping them with the steel pallet. Touch bare spots with shellac, fill all cracks with liquid plaster, wiping away the excess with sponge, brush, and wet fingers, so as to be perfectly smooth and level.

When dry, shellac all fresh plaster; then with a sharp knife trim the top opening to a true, unbroken circle, and set the mould over in place. Run liquid plaster under the edges of the mould from the inside, smooth off carefully around the bottom as before forming a close joint with the slab or table, and when the plaster sets, shellac all fresh places.

Into a half pint of hot kerosene put one of the candles shaved fine. When dissolved go over the entire inside of the mould with a thin, even coat of this grease.

Now that the mould is prepared the cement may be mixed. Allow two or three hours to be devoted to this mixing and the packing of the vase.

The cement is to be used in a "semi-wet" condition, as it gives a most excellent surface and dispenses with a "core." Two parts of sand to one of cement may be measured out and put thru a sieve or screen to remove dirt, lumps, and stones. Turn over and over with the spade till the mixture shows a perfectly even color when cut with a trowel. As the material is inexpensive the exact amount for a particular vase or model should be determined by experience. Thoro mixing is a prime factor in successful cement work. Sprinkle lightly with water as the mass is turned over, adding the water slowly as the cement will not pack well if made too wet. Test frequently by squeezing a hand-

ful tightly: when just wet enough the mass will hold together retaining the impression of the hand, and may be rolled to and fro in the palm.

As the water is added the cement will gather in lumps, other spots remaining dry. Stop sprinkling before the mass is wet all thru and work thoroly with the plasterer's trowel till all lumps are broken and the moisture is evenly distributed. As the mould has been coated to prevent the cement from sticking, dump a couple of spadefuls of the mixture into the mould. With the hands protected by gloves distribute the cement evenly over the bottom to a depth of three inches.

Beginning in the center of the bottom tamp the cement firmly with the mallet till very solid, but do not go within three inches of the sides, or the walls will not unite perfectly with the bottom.

The sides are placed next. Dump the cement in, a couple of spadefuls at a time, build around the sides with large handfuls, pressing very firmly in place and making a layer about three inches thick.

Avoid packing or smoothing the top of the layers and keep the upper edge the full thickness, so that subsequent layers rest solidly upon it and do not slide down. When the cement reaches the top be especially careful to have the walls a good deal thicker than the depth of the mould at this point, to allow for compression when packed. Test the thickness of the walls from time to time with a straight piece of wire.

Begin at the bottom, after scraping out the excess, and tamp firmly but lightly round and round the walls, rising gradually to the top. This drives the cement outward and upward in perfect contact with the sides and top of the mould, and keeps the sides from jarring down. Tamp the walls again and again till the sides have been compressed to an inch or so in thickness, and

the cement at the top driven in flush with the overhanging edge of the mould. If any part falls during the packing, scratch the surface well before replacing it.

In building up the layers the cement will gather in the bottom; scrape this up and add it at the top, the packed bottom being easily located. As the inside is that of the completed vase, see that it is neatly smoothed off.

With the steel pallet bent to fit the curve go carefully around the top edges just beneath the overhanging edge of the mould, and press the cement firmly back making the inside edge of the vase solid and continuous. After standing two or three hours the work should be frequently sprinkled, and finally left for from thirty to forty hours, wetting the inside several times. The mould may then be removed as follows: Peel off the burlap strips over the joints, let go the chains and jar the top of the last formed section, using the fist in preference to the mallet. It may be necessary to pry a dull chisel into the crack of the mould at the bottom so that the mould may start from the cement evenly. Release the opposite section, then the two sides.

If the joints were properly treated and the packing carefully done, the vase should show no marks of the mould and no porous spots. The latter, if any appear, may be packed with cement prepared as before, using the steel spatula to pack it. Keep from the sun for at least a week and soak well with water twice a day; all the better if the vase can be submerged in water for several days. If it must stand in a heated room while curing, cover carefully with a large piece of table oil-cloth to retain the moisture.

Broken places may be fastened on by using a paste of neat cement applied while the parts are wet.

CHARLES T. SCOTT

Pennsylvania Museum School of Industrial Art
Philadelphia, Pa.

CHAUTAUQUA

WHAT power lies in names! Even to-night with all outdoors encased in an armor of ice, and the sleety rain falling out of the darkness above, a single word on a printed page is calling forth pictures more real than the night itself, pictures of a sunlit summer country, a region of hills and lakes and high-born streams, of fields and waving woods half clothed in an Indian summer haze of legend and mystery.

"The Chautauqua? Ah yes; which one?" The "Chautauqua idea," a plan of summer school work and study at home, first found expression some thirty-five years ago at a camp in a grove on the edge of a beautiful lake in western New York. The educational scheme, finding favor, has traveled pretty well around the length and breadth of the world, and the name has followed the thought, so that to-day there are Northern Chautauquas and Southern Chautauquas and even Australian Chautauquas, and people who travel are apt to say, "The Chautauqua? Ah yes; which one?" But to one who has walked on the edge of that lake and under the trees of that grove the word is no common noun; it does not call for the article: to him there is but one Chautauqua and that is the one on the edge of the lake which the Indians named Chautauqua.

In the rolling hill country just where the Appalachians spread to the west and north to disappear in the Mississippi Plain and the vine-growing slopes of Lake Erie, lies the County of Chautauqua, the westernmost county of New York State. No-

where on all its retreat did the perishing Indian race leave a chain of more melodious names than here: Chautauqua, Cattaraugus, Conewango, Cassadaga. Even to-day these names still cling to lakes and streams and wooded hills like the scent of forgotten

There are days when the eyes of the water among the hills are silver and the blue of the sky is the tenderest.

camp fires, the memory of a race which has long since folded its tents.

All thru the year two climates strive here to rule the air; one when the wind blows from the north, one when it blows from the south. There are days upon days at a time in summer as well as in winter when the cool green sky of the Canadas holds overhead and the eyes of water among the hills grow keen and blue as the blade of a hunting knife. The evergreens stand clear-cut and mosaic-like against the slopes of the farther up-

lands, and in the villages down the hills like those in Parrish's fairylands, every separate color of wall or roof or window or chimney gleams like a separate jewel. Painters would disagree

Here the lake is bordered with marshes which Nature has planted in Nature's way, with cat-tails along the shore and lily-pads and purple arrow-heads and yellow water-watches before, and down-like willows behind, edging the hills.

on days like these when the air is a crystal and not a veil. These are the days for Winslow Homers and Prendergasts. And with what magnifience these days end! It is an experience to look out over the breadth and depth of the plain with the thin line of Canada sixty or seventy miles away, the sunset climbing the dome to the zenith above, gilding the vineyards and woods

laid out below, filling the Northern and Southern skies, and flaming out on the thunderheads in the east in a full orchestration of color!

And then there come other days—days when the eyes of

The silhouettes of elms along the shore loom gray in their garments of tattered lace.

water among the hills are silver and the blue of the sky is the tenderest, a film of white and pinkish cloud has been pulled across it and somewhat torn in the pulling, so that at moments the sun comes thru, and at moments goes, and by slight persuasion comes again. On these days the air is like the air of Tuscany, perfumes are borne to us of regions farther south, and the key of the landscape is pearl. These are the days for the painters of old Lyme, the Tryons and Comans and Lathrops.

And as to Chautauqua Lake itself, it lies, so to speak, in the very arms of the hills. Here and there fold of forest or ribbon of land obscures it; here, it is so wide that the camps on the farther shore are mere dots of white; there, so narrow that the old man who attends the primitive ferry can be hailed from the

There is a moving blur of light across the water, and a blur of sound in the maples and evergreens of the grove.

other side. Here, it is bordered with marshes which Nature has planted in Nature's way with cat-tails along the shore and lily-pads and purple arrow-heads and yellow water-watches before, and down-like willows behind, edging the hills. The sound of sheep bells comes over the water and tells of upland pastures, and now and again the willows part and the slopes themselves are seen, perfumed with sweet briar and sentinelled with mullein. There, are the long inlets to be explored where still deep water winds under naves of great boughs so closely

woven in places that the sun cannot come thru even on the brightest days, and boats float between the arch above and its reflection below.

As to Chautauqua Assembly. It fits itself in a rare way to the heart's desire. Here is a book-store where those so-minded may procure the season's best seller, and where, on the other hand, one may find quaint out-of-the-way volumes of verse side by side with standard text-books on Greek, German, Esperanto, if one wishes, Sanskrit or what you will. In the lobby of the hotel one may rub elbows with the brightest lights in politics, literature, philosophy, science, and religion, coming and going the whole season long. Or one may escape it all and in a ten-minute jaunt from the gate be making his way into the almost impenetrable depths of primeval forest on the hill-top back of the town. In the ravine among the tall timber at the southern end of the grounds one pauses in his morning walk because above the notes of a robin he has caught the music of some stringed instrument, and in another moment he has learned that it comes from a hut just there in the woods—a violin in the hands of an artist whose name is known from coast to coast.

Literature and philosophy and science are to be had for the asking in this Utopian city among the trees, and yet to one who is addicted to idleness the path by the lake is always alluring. At dusk the sound of the chimes comes thru the mist; the silhouettes of elms along the shore loom gray in their garments of tattered lace. There is a moving blur of light across the water and a blur of sound in the maples and evergreens of the grove. The great cathedral organ, gaining strength, is now filling the whole forest with the stately gloom of Handel's "Largo" or raising anew the pillars of "A Mighty Fortress is our God." The grove is taking the sound unto itself and refashioning it after its own manner and sending it forth again with power and majesty.

And then if sometime the perfection of Chautauqua wearies as William James has said it sometimes does, there are at the water gate the boats and at the land gate the trolley. At Celeron is a summer resort with its vaudeville, a ferris wheel and incandescent lights in due profusion, and in the other direction Mayville and Westfield, two pretty villages. The ride is over the noblest of the Chautauqua Hills, and at its end lies Barcelona with its sad quaint charm, a fisher village on Lake Erie which artists and tourists have so far left unspoiled. Here is a crescent of sand which once dreamed it would be a harbor, a cluster of fisher huts where a city was to have been. A handful of net-reels are creaking in the off-shore breeze. On the cliff above the trees an old deserted lighthouse tower remains, the only survivor of Barcelona's youthful dream. Day by day, braving storm and season the fishermen leave these sands where, in the seventeenth century, de Celeron planted the banner of France in another dream, which too has gone centuries since unfulfilled.

To the art world at large the whole region is still an undiscovered country. Painters of reputation, however, have summered here. A. T. Van Lear and H. R. Poore are some of those who have conducted classes here in the past and among the early residents Frank and Dan Beard are fondly remembered.

The widespread Arts and Crafts movement struck Chautauqua in 1902. A group composed mostly of enthusiastic young students, some of whom have since won places for themselves in Art or Education, took charge of the classes in The Ark. This was the most ancient and venerable building at Chautauqua. By 1903 The Ark had been cut in two, other buildings of various sizes had been pulled together from many parts of the grounds and this quaint cluster, disreputable enough in appearance but somewhat picturesque too, remained for six years the abiding place of one of the most serious-minded and hard-working

summer schools in the country. The aim and spirit of the school at that time was expressed in the homely motto which appeared upon its sun dial in the courtyard and at the head of its weekly bulletin, The Blue Print: *"To Avoid the Commonplace and Beautify the Common."* The bulletin, whose name tells its

A building of long, restful lines, shingle-clad, shaded on the west by broad eaves.

story, expressed in its modest way the aim of finding the ideal among limiting conditions: the tottering buildings, as summers passed, burying their crudenesses deeper under the native vines and shrubs which careful hands were training, declared in their own way the same ideal, while adequate shops were hoped for.

But to-day at Chautauqua the long dream of the Arts and Crafts is being adequately realized. The days of The Ark are gone. Crowning College Hill, where it overlooks the Lake, the new shops rise. Last summer the first section of the school was completed. A building of long, restful lines, it is shingle-clad,

shaded on the west by broad eaves, and on the east protected by a colonnade two hundred feet in length, with floor of red tiling and the roof carried on twenty white massive columns. But Two Stack Hall with its two wide chimney places and room for

And on the east protected by a colonnade two hundred feet in length, with floor of red tiling and roof carried on twenty white massive columns.

some ten score students, and a hundred feet of shops to right and a hundred more to left, forms only about a fourth of the scheme. This much is already inadequate, and work on two more sides of "Da Vinci Quad" has been begun. Within the Quad is to be a splendid garden planned and maintained by the Agricultural College of Cornell University. Those whose pathways lay thru the perfume and color of last summer's garden on

the hill, well know what this may mean for morning's inspiration and all day's joy. Dominating the whole Quad is the "spreading chestnut tree" which one has called "the symbol of all those things which are good enough to survive to our time and of which the Arts and Crafts is one." From this the green slopes to the lake. Was ever Art school dropped into more perfect setting—the garden for intimate acquaintance, and always the lake beyond—a salver of precious metal where every passing cloud by day and every star in the wheel of night may drop a shimmering token of its visit?

Pathways thru the perfume and color of last summer's garden on the hill.

And as to the work of the school, you ask? With its increase in facilities, its broader educational vision and its realization of a greater era opening before it, has come no loss of pioneer earnestness and intensity. In the meetings of those who guide its policies to-day assertions seem to be as positively made and as vigorously argued as in the first years of the school. Meanwhile, it has grown, and men and women of more tried experience have been available in its service. The plan was begun last year of obtaining teachers of nation-wide reputation for limited engagements in special lines. This proved so successful that it will be carried farther the coming summer.

A plan peculiar to this school was put into practice last summer of opening each day with a half hour's illustrated talk

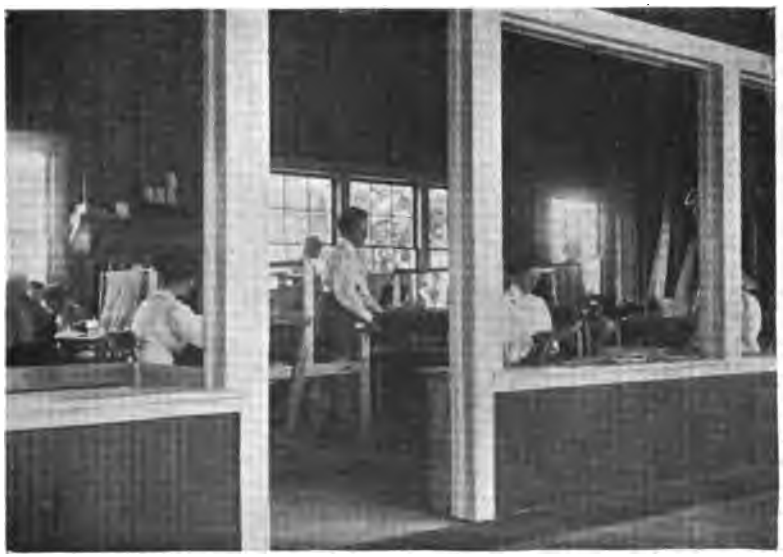
on fundamental aspects of the arts. This was free to all students and teachers of the school and thru it all the work of the shops and studios was unified and filled with deeper significance. These

Dominating the whole quad is the spreading chestnut tree.

talks were illustrated sometimes by the lantern, sometimes in chalk, sometimes by masterpieces of music exquisitely played and sometimes by masterpieces of Art and the Crafts procured for the occasion. Given by a man whose grasp of the philosophy of art is of the broadest and completest, and whose eloquence is such that those who once have heard him respond to every oppor-

tunity of hearing him again, they were of such beauty and interest that scores who were otherwise not of the school sought admission to "Two Stack Hall" for these alone.

The curriculum of this school has changed from time to



A peep into the airy shops of the noisy crafts.

time. For some kinds of work once taught it no longer has a place. It holds activities which do not involve skill, unworthy the name of Craftsmanship—those which do not involve thought and feeling, unworthy the name of Art. On the other hand it does not hesitate to stand, regardless of popularity or its absence, for arts which it deems worthy of the craftsman's study. Last year one class was carried thru the entire term with one student. This course will be continued this summer.

Few schools have preceded Chautauqua in the teaching of printing as an art. Such a course was inaugurated last year. The new-old art of pen craft was given a place in the school last summer, and words of appreciation show that this course has

The corner entrance to the shops of the quiet crafts.

not only given inspiration but more measurable results to those who followed it. The study of the Figure, Landscape, Still-life, Composition, Design in the Arts, and of Bookbinding, Woodworking (including carving), Chair-seating, Weaving, Metalworking, Leather-modeling, Basket-making, in the Crafts, cover the chief lines of work.

With such a curriculum and such a spirit underlying its operation, with almost every teacher of the Arts or Crafts thruout

the country ready and eager to participate in its work, with a student body drawn from the length and breadth of the United States, from families already accustomed for generations to look to Chautauqua as a summer home, and with its location in the midst of some of the most beautiful and paintable of America's scenery, the extent of the sphere of influence now open to the Chautauqua Summer School of the Arts and Crafts can only be guessed. With the opportunities which it now has, rightly used, it would not seem too much to prophesy for it a place among the highest.

GEORGE W. EGGERS
Director, Department of Graphic Art
Chicago Normal School

COLOR

III. A COLOR STANDARD

CERTAIN forms of art expression have been defined as "nature strained thru the temperament of the artist."

Nature is not art and nowhere do we find this more clearly demonstrated than in that color scale seen in the image of the solar spectrum.

All students of color naturally turn to the hues of the spectrum while seeking a color standard; for the advantage of a standard to be found here is of unquestionable value, as a mathematical basis is afforded by the vibration frequencies that might fix the color intervals to be associated with these various color qualities. But there is absolutely no basis for the assumption that the natural color intervals composing a complete scale may be found in some physical phenomenon; the natural intervals being those that would determine the choice and combination of colors that satisfy the aesthetic demand.

The physicist, however, does not determine the wave length or vibration rate of any definite color quality; in reference the color is said to be of about a given wave length, or it is said to be above, below or between certain of the Fraunhofer lines. One reason for this is that all color sensations cannot be accurately determined by the wave-length, and another reason, the physicist is not particularly interested in finding the color centers.

Color centers have been determined, tho, with a sufficient degree of accuracy to allow one to feel secure in determining definite ratios.*

* Determining the mathematical center of a color, in itself, is not of such great assistance as one might be led to believe, as, for example, we may determine the vibration rate of the dominant color of some degraded pigment of a yellow hue. If this color is compounded by mixing red, yellow and blue pigments, it may be said to be the result of the combination of orange and green which were derived from the so-called primaries, orange, by the union of red and yellow; and green from that of yellow and blue. Orange and green have been called secondaries and the degraded yellow has been called a tertiary.

It will be seen that the compound contains an excess of yellow and has merely been degraded by the purple resulting from the red and blue components.

If the natural intervals in color are to be measured numerically, we must adopt the numbers found in the spectral rates while the color qualities of the solar spectrum must be added to and re-adjusted.

If we arrange a good number of vivid pigments in spectral order we immediately find some very important color qualities that are absent from our spectral series, as a purple and a purple-red. If these colors are to be given a logical place in the color scale with regard to the spectral hues and a definite rate allotted to each it will immediately be seen that the purple-red must be

If this degraded pigment is employed as a light water color wash around a vivid yellow it will appear violet, even tho the vibration rate of its dominant color may be identical with that of the intense yellow which it surrounds. If the vibration frequency of this suppressed yellow is found to be in the neighborhood of 500 and attenuations of it (such as light water color washes over white paper as suggested above) are juxtaposed to some vivid red color, as rose madder, we find the yellow seems to be of a decidedly green cast, and suggests a color quality that is represented by the vibration rate found in the neighborhood of 600; while if some such pigment as emerald green is juxtaposed instead of the rose madder the yellow pigment suggests a color that would be represented by a vibration rate much below 500.

Again, if a pigment rated about 480 (a red-orange) is juxtaposed to a green pigment located at 600, the red-orange will seem to be much more red than when seen alone and the green seems to have become a blue-green.

If this red-orange and green are each in turn juxtaposed to a yellow-green, we find with the red-orange the yellow-green seems to have become more green and when juxtaposed to the green the yellow-green seems to have become more yellow; but if the three are placed in a row in spectral order we find the yellow-green in the center does not seem to be affected by either of the other two colors, while they each seem to be crowded toward a quality opposed to the central yellow-green. This effect is heightened if the central color is intense while those to either side are suppressed. The apparent qualities of these two colors before suppression are found to be similar to that of their contrast effects before the yellow-green was interposed.

Yellow has been called the brightness hue, and all spectral hues were said to take on a yellow quality as they became brighter. This is not true of blue, indigo, or violet, for these colors pass to white directly and not thru yellow.

There is, however, a tendency noted for most colors to change their quality centers with relation to yellow-green, found as it is in about the center of the spectrum (diffraction grating) as the image varies in brightness. Now as the spectral colors carried to light first become fused in the yellow-green region it will readily be seen with white or extreme brightness established there that the color qualities to each side would move to their true centers only when brightness is eliminated, and as the spectral image is seen because of its brightness the true color centers cannot be found there but must be taken at the point of darkness.

placed below spectral red and the purple still further down, and also above violet because of the approach in quality to purple of this last color.

There are several ways in which this standard of the natural intervals may be accounted for.

1st. By a study of the negative after-image which is a complex color sensation that establishes the triad (and even more) when it is properly studied.

2nd. By tempering the most accurate rates of our color centers, as determined by instruments, with reference to simultaneous contrast.

3rd. By starting with the lowest frequency visible and assigning this rate to purple, the only retinal color not accounted for among the spectral hues.

4th. By employing the musical analogy.

The accompanying chart is offered without color for the simple reason that there are no pigmental colors that may be arranged in a scale and held to as a standard.

In transposition from key to key, various pigments standing for the same color may be employed. In this way the use of all pigments is accounted for and there cannot then really be any standard colors (pigments) except, possibly, those standing for dominant colors, which would never be used together.

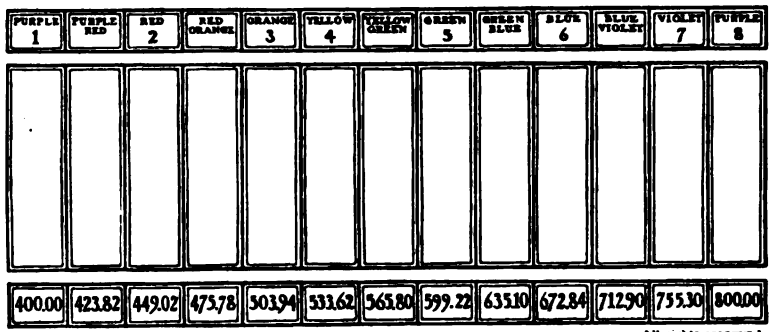
If colors are not offered the practical value of the ophthalmic standard may be questioned but even if the mental image of each of these color notes is all we have to work with we have as much to go by in color as the vocalist singing independently of an accompaniment has in his musical score. Surely we soon acquire a very good idea of the reddest red, the yellowest yellow, etc. These intense colors determine our dominant notes from which we must work.

These ophthalmic rates may be used for computation, not for inflexible instrumentation.

This chart must not be construed to be the exploitation of some color system; it is merely a mathematical standard of the natural color intervals computed from a monochromatic basis.

THE OPHTHALMIC STANDARD

COLOR SCALE



Copyright, 1910 by Louis W Wilson. All rights reserved.

THE PRACTICABILITY OF THE COLOR SCALE DEPENDS UPON PLACING OPHTHALMIC PURPLE AT EITHER EXTREMITY OF THE SPECTRAL IMAGE. TO THIS COLOR A GREATER SIGNIFICANCE MAY BE ATTACHED THAN TO ANY OF THE OTHERS. THE PIGMENTS, FROM TWO TO SEVEN, INCLUSIVE, STAND FOR SPECTRAL HUES CHOSEN AT INTERVALS OF A DEFINITE WAVE LENGTH, TAKEN ON THE VERGE OF DARKNESS; THESE COLOR CENTERS ARE INDICATED BY THE VIBRATION FREQUENCIES FOUND IN THE NUMBERS BELOW, TO BE READ IN MILLION MILLIONS PER SECOND.

It must always be remembered in choosing and arranging colors that if they do not feel right in combination there is no mathematics in the world that can make them right. However, the problem of explaining why certain colors are chosen and combined instead of others can be solved mathematically.

When any one color is taken as a basis for operation certain of the others assume a definite relative intensity with regard to it that is only to be found in some one particular color key

and this interrelation establishes the key. The soul of color expression is to be found in the key.

The rates given in this scale, are highly tempered; in using them we will be nearly right in every key but not quite right in any, according to any physical laws. The perfect, untempered rates may be found for the notes of the triad in the following manner:

When any rate is taken from 400 to 800 as the first note of a triad, the second note of the triad is the product resulting from the rate of the first note multiplied by the fraction 5-4. And the third note of the triad is the product of the original rate multiplied by 3-2. In this way any triad made up of a first, a third and a fifth interval may be determined. If the numbers would be carried above 800 the denominator of the fraction must be doubled.

In these rates of the ophthalmic standard the mathematics is all worked out, so that the very simple method of finding the color intervals by counting from one color step to another may be resorted to. To determine the notes of the triad in this way, start with any color as the first note and count up five half-steps to reach the second note and eight half-steps to reach the third note of the triad, while the seventh half-step brings us to a color that bears a relation to the first note that has been called complementary. When we count thru the upper half of the scale we must follow the highest note purple with purple-red which is found in the lower part of the scale, of course counting purple but once.

The standard offered in the diagram is not a frivolous juggling with the solar spectral hues, nor is it some fanciful scheme advanced to argue the question of personal preference but it appears, after having been well tried out, to be a standard so broad as to contain and explain all individual preference.

Inasmuch as it lends itself to transpositions from key to key it is a standard to be worked from, not a system to which everything must conform.

As a motive the solution of some key problem that is well understood with the mood it appeals to, is found to be a *raison d' etre* that the painter and designer of the immediate past and present seem to stand in need of.

LOUIS W. WILSON
Chicago, Illinois

ANNOTATED OUTLINES

MAY

MAY and June should be devoted to the observation and record of beauty in nature, and to the utilization of the elements of beauty so discovered in decorative design. Some one definite topic in each grade will help to focus attention, and to insure intelligent work. "Draw what you see," and "Make an original design," are directions as futile as they are frequent.

PRIMARY

The making of additional pages for the booklets should go on merrily during the bonny month of May. The titles chosen are comprehensive enough to allow the introduction of almost any topic which may happen to appeal to the children. Let the motto of The School Arts Guild hang constantly in sight of the class. "I will try to make THIS piece of work my best."

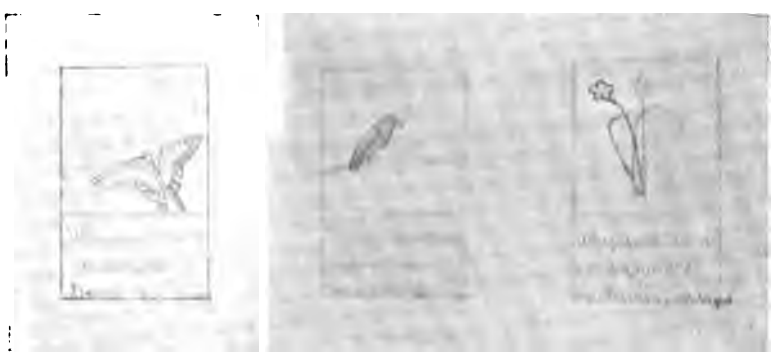
FIRST YEAR. Add pages to the booklet entitled Springtime.

Let them be original. Urge each pupil to select subjects of personal interest. Amusing and surprisingly good results are likely to appear. A thoroly original sheet like that shown as Figure 1, is refreshing. Have a good subject drawn more than once. A little criticism will help the pupil to improve, unless it is given in such a way that his ardor is wholly suppressed. "Without peace and pleasureableness in occupation, no design."

SECOND YEAR. (U) Add pages to the booklet entitled Spring Growths.

Whatever the subject matter, try to have the pages as well arranged as possible. The three pages of a booklet made last year by a boy in Michigan, reproduced as Figure II, are typical of the best work of little children. The intention is evident. Everything is thoughtfully done, and with all the skill at command. Such pages are worth a bushel-wastebasket-full of "spontaneous free expression." These pages are in pencil. A delicate wash of color was added to the flower drawing. Brush drawing need not be thoughtless, but it is often treated less seriously than pencil drawing. The promise of color as a final grace may help to better pencil drawing.

An illustration for "Spring Time," by Mary Sovenske, II, Chicopee, Mass.



Three pages from a booklet entitled "May," by Donald Wilson, III, Belleville, Mich.

THIRD YEAR. Add pages to the booklet entitled, Outdoor Neighbors.

"Outdoor Neighbors" need not be interpreted narrowly. Domestic animals may be included, and the poultry, as shown in Figure III. These two roosters have an attitude not altogether unknown between neighbors of a larger growth—physically! Whatever is of special interest to the child, in his out-of-door world, will be a good subject. Insist on thoughtful drawing.

An illustration for "Outdoor Neighbors," by Mary Wilkins, II, Marlboro, Mass.

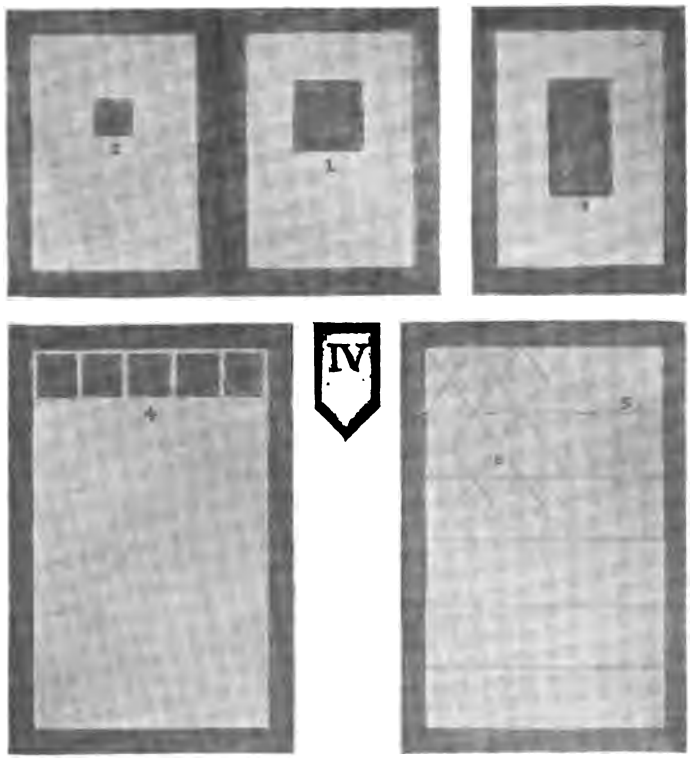
GRAMMAR

In these grades problems should be selected of such a character that each will be worthy of thought and practice until successfully worked out at the end of the school year. The problems should not ignore local conditions. As those can only be guessed at, and considered in a very general way, in an outline such as this, that which follows may be of value only as suggesting a method of procedure.

FOURTH YEAR. Plan a Cover, with drawn decoration; the color scheme to exhibit two tones of one color.

The most attractive Closing Day programs that came to me last year consisted of the usual printed folder bound into covers decorated by the children.

The programs may be planned early with pages 4 1-2″ x 6″, or 6″ x 9″, or any other size to correspond with available cover papers.

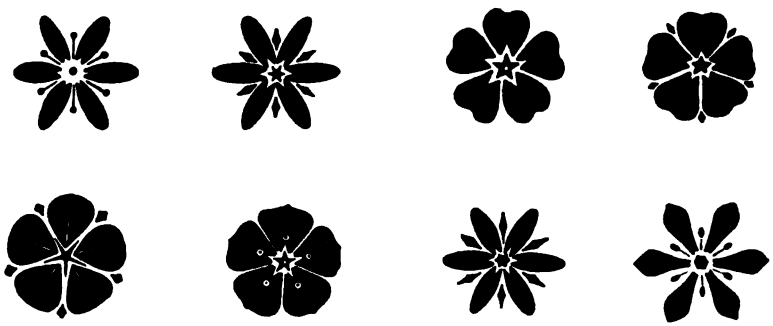


Diagrams indicating the layout of fourth and fifth grade cover designs.

The covers may be laid out as indicated in Plate IV. Figure 1 shows a front cover 4 1-2″ x 6″, with a half inch border, and a 1 1-2 inch spot; the spot on the back cover, 2 (for a monogram), being but 3-4 inch. Another form is shown at 4. In this case the cover is 6″ x 9″. The marginal border is a half inch, and the headband is composed of units about 7-8 inch square. The

plan for such a cover should be outlined and illustrated, that the children may go at the preliminary work with intelligence and enthusiasm. The spot (1) is to be an original rosette based on a single flower form, front view; or the headband (4) is to be made up of a succession of similar units.

Begin at once careful drawings from the spring flowers, front view. Draw in pencil outline. A wash of appropriate color may be added when the pencil outline is satisfactory. The illustrations in Plate V show good drawings in silhouette.* Begin also to collect illustrations of square rosettes. Look in back numbers of The School Arts Book, in The Craftsman, in the Keramic Studio, Palette and Bench, and in books on historic ornament.



From views of wild flowers taken from the cards of flower forms published by Henry W. Poor, Boston, Mass. Top row, rue anemone, hypatica, marsh buttercup, tall buttercup. Second row, yellow cinquefoil, cranesbill, snowdrop, trout lily.

FIFTH YEAR. (U) Plan a Cover, with stamped or drawn ornament; the color scheme to exhibit two tones of one color, or two related hues.

The method of procedure should be the same as in the previous grade. In Plate IV, 3 shows a 4 1-2″ x 6″ cover with an area 1 1-2″ x 2 1-2″ reserved for the drawn ornament. At 5 and 6 the 6″ x 9″ cover is shown with lines drawn to indicate the spacing of the stamped ornament upon the vertical (5), or upon the oblique (6).

* From drawings by Henry W. Poor, Boston Normal School, and published by himself in a series of cards for use in teaching design.

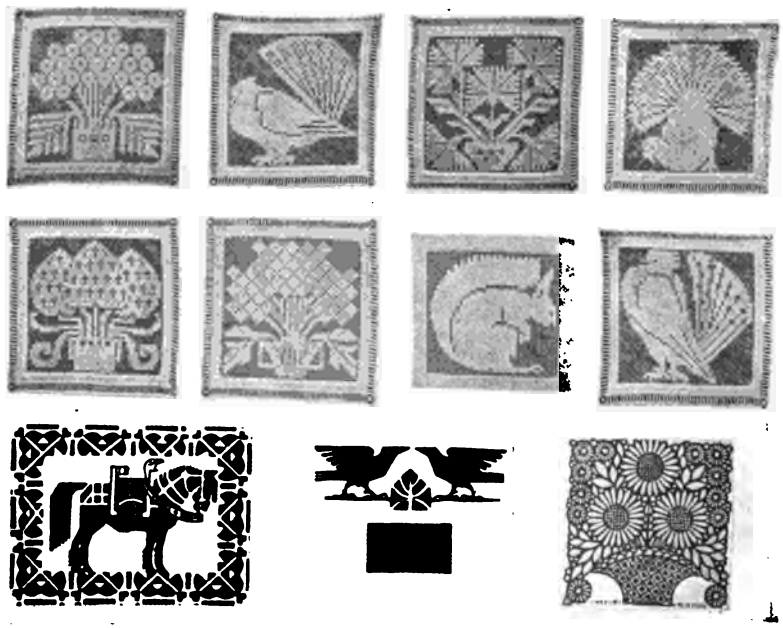
Begin at once careful drawings from the spring growths; side views, rendered in pencil, or brush (as shown in Plate VI), or in both, as shown in the frontispiece of this number of the magazine. These will serve to suggest pleasing bilateral forms suitable for ornamenting the covers. Begin also to collect examples of bilateral units. The principal sources are those mentioned in the previous grade.

Plate VI. Side views of wild flowers in two tones. Crocus, arbutus, trout lily, marsh marigold, violet, dandelion.

SIXTH YEAR. (U) Plan a Totem, to be woven or worked in cross-stitch embroidery; the color scheme to exhibit a group of tones.

A Totem (see dictionary) may be worn as a substitute for a class pin, a school badge, a club sign, etc. It may be woven of wide strands and sewed upon a sweater; worked in silk upon a bit of cloth, and sewed or basted on a shirt waist; worked in linen and fastened inside a hat; or embroidered upon the corner of a handkerchief, or the end of a tie. The totem may be derived from any living form, or from merely geometric elements. It may fill any shaped space. The illustrations in Plate VII, taken from a German publication, show clever adaptations of natural forms within a circle. As our totems are

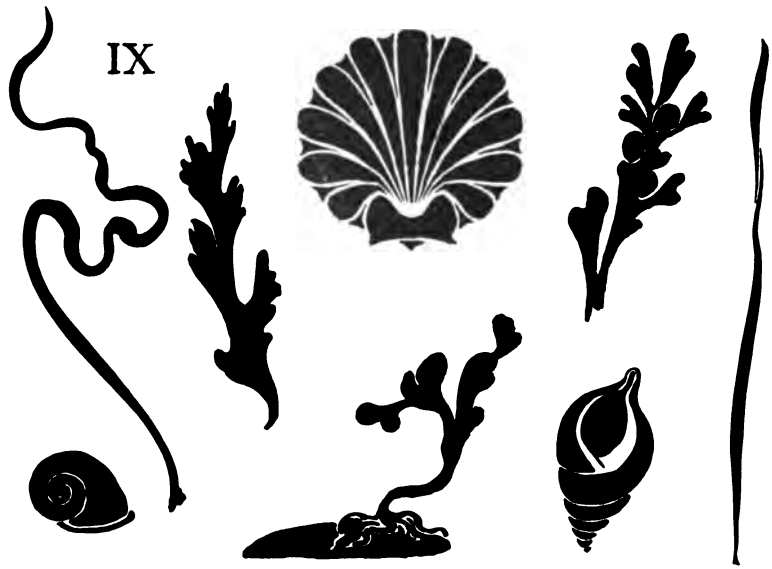
Plate VII. Totems, reproduced from a German publication.



Examples of natural elements adapted to given spaces and to the limitations of material, from German publications.

to be woven or worked in cross-stitch, they must ultimately be worked out on squared paper. The forms shown on Plate VIII, also from a German publication, are therefore more closely related to the work in hand, but even these are not so good, in some cases, as those we hope to design!

Begin at once careful drawings of flowers, insects, butterflies and moths, birds, animals, anything that may be used as the basis for a totem. Begin also the collection of shields, medallions, armorial bearings, emblems, and decorative spots of all kinds which show well designed symbols. Collect also examples of "squared patterns."

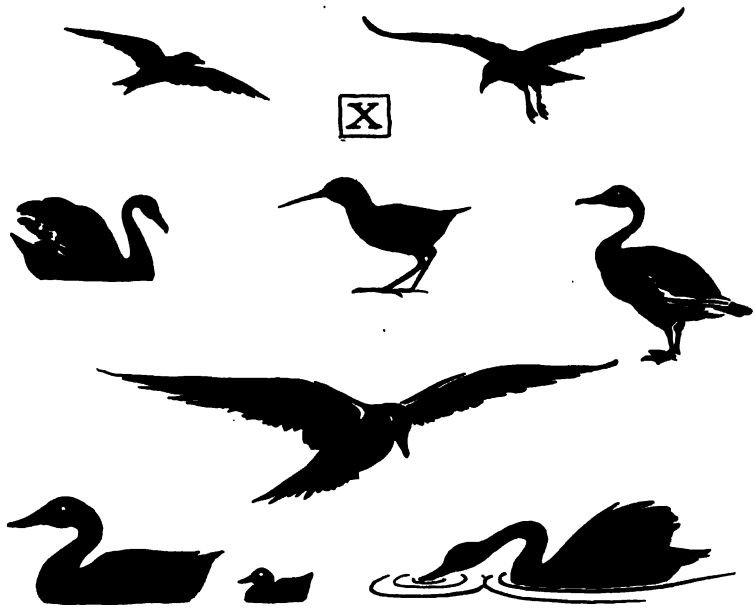


Silhouettes of shells and aquatic plants which may be used as motives of design for canoe pillows.

SEVENTH YEAR. Plan a Pillow Cover, to be used in a canoe; the ornament to be applied with a stencil; the color scheme to exhibit a group of hues.

A pillow to be used in a canoe may have a bolder and more strongly colored design than one to be used indoors. The elements of the design may be sug-

gested by outdoor things, especially such as are naturally associated with the pond and river, the lake and the ocean. Begin drawing elements which will furnish appropriate motives for the canoe pillow. In Plate IX are some aquatic plants and shells. Plate X shows forms of aquatic birds. On Plate XI are



Silhouettes of aquatic birds adaptable to designs for canoe pillows.

forms made by pupils in schools: the first under the direction of Mr. Willis B. Anthony, the other two under the direction of Mr. Frank A. Parsons. In making the drawings keep in mind the use to which they are to be put, and indicate where the bridges of the stencil might best occur.

Collect also illustrations of good pillow covers. In addition to the magazines previously mentioned, Good Housekeeping, Home Needlework, The House Beautiful, and The Ladies' Home Journal are promising fields for investigation.

Plate XI. 1. A design based on aquatic elements, by a grammar school pupil, North Adams Mass. 2 and 3. Designs with similar elements, by pupils of Mr. Frank A. Parsons.

EIGHTH YEAR. Plan a circular Mat of tooled leather, or a decoration for a plate; the color scheme to exhibit a group of harmonious colors.

Decorations for these objects have two elements in common; they must be circular in plan; they are best treated with a continuous pattern. Of course

Plate XII. Designs by Miss Catharine Sinclair. Reproduced from The International Studio.

Plate XIII. 1. A Lenox porcelain by Albert A. Southwick. 2. A Majolica plaque by Esther E. Tatlow. 3 and 4. Plates by G. De Feure. Reproduced from The International Studio.

both may be worked out on paper. Preferably the design for one should be carried out on the leather, and for the other on an actual plate. The plate may be a bread plate of wood with the design worked upon it in any appropriate medium.

Plate XII shows two ways of arranging the ornament; in a central radiating pattern, and in a border whose every element is determined by a concentric circle or a radial line.

Plate XIII shows other possible arrangements; the whorl, and the wreath, a border with a movement from the rim inward radially, and the border with a movement outward and forward.

Decide to experiment with at least two of these plans, and begin the collection of material for the designs. Almost any sort of nature material may furnish the motif for the mat. For the plate, from which food is to be taken, the geometric and highly conventional flower forms are, perhaps, best. Select a few elements which promise well and make first a faithful drawing of each in pencil, and then a careful study in color.

Begin to collect also, illustrations of good table mats in tooled leather, and of well decorated plates. There is a vast difference between pictorial china and decorated china. Emulate the strictly conventional decorative work only.

H. T. B.

HIGH SCHOOL

FREEHAND DIVISION

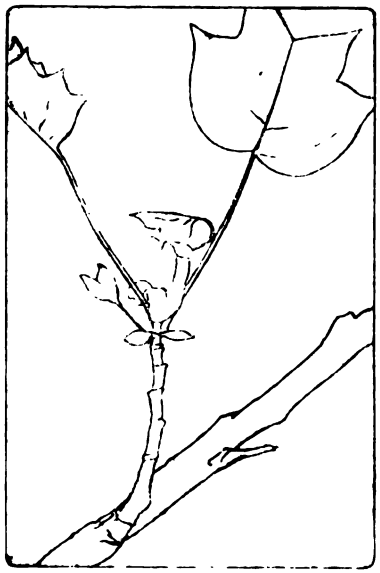
The outline for last month took up the subject of design for simple furniture both as to its presentation in the form of working drawings and as perspective renderings from such working drawings. There is no reason why such problems should not be continued for a longer period if necessary, or as long as their value to the class seems to warrant.

The decoration of articles made in school workshops is a subject open to discussion. The uniform application of surface ornament to such articles is a serious mistake. Beautiful wood is not always made more beautiful by applying the design of a high school pupil. This is more especially true of wood having a distinct grain. Surfaces which finish a uniform color without graining-marks take simple border lines, corner units or other decoration very satisfactorily.

Exercises which have been suggested in previous months covering lines, abstract forms and simple conventionalization should yield good material for application to such shop products as are adapted by form, texture or color to receive such decoration.

An adage of art students during the first craze for impressionistic painting used to be, "When in doubt, use purple." No adaptation of this advice can serve us here as our law had best be, "When in doubt, don't decorate."

With the hastening of springtime and the rapid development on every side of buds and blossoms, our return to such a source of supply for study



material seems inevitable. In the beginning problems last year we drew the autumn types of flowers and branches. Here and now we have a totally different kind of thing to draw. A series of studies from the same horse-chestnut or other large leaf shoot, made on successive days by different pupils from a tight, hard bud to its completed opening would prove a fascinating exercise of inspiring interest when the whole series was displayed in a consecutive arrangement. At no season of the year save this does Nature display such delicate gradations of tone thru the quickening stalks and stems, or such witcheries of upward curves and spreading sheaths.

Innumerable studies in line and tone of every kind of springtime nature should be produced in our schoolrooms now above all times, not as pictures or finished drawings but as so much searching into the storehouse where old Nature keeps her million secrets free for those who care to toil for the having.

In the depicting of these details of spring plant-life their decorative value should not be forgotten. Every curve and branching, every sequence or rhythm of size or shape should be the source of a new pleasure to teacher and student and caught as far as possible with brush or pencil. From such a collection of nature growth and design suggestions we will hope next month to evolve some satisfactory products for the closing weeks of the year's work.

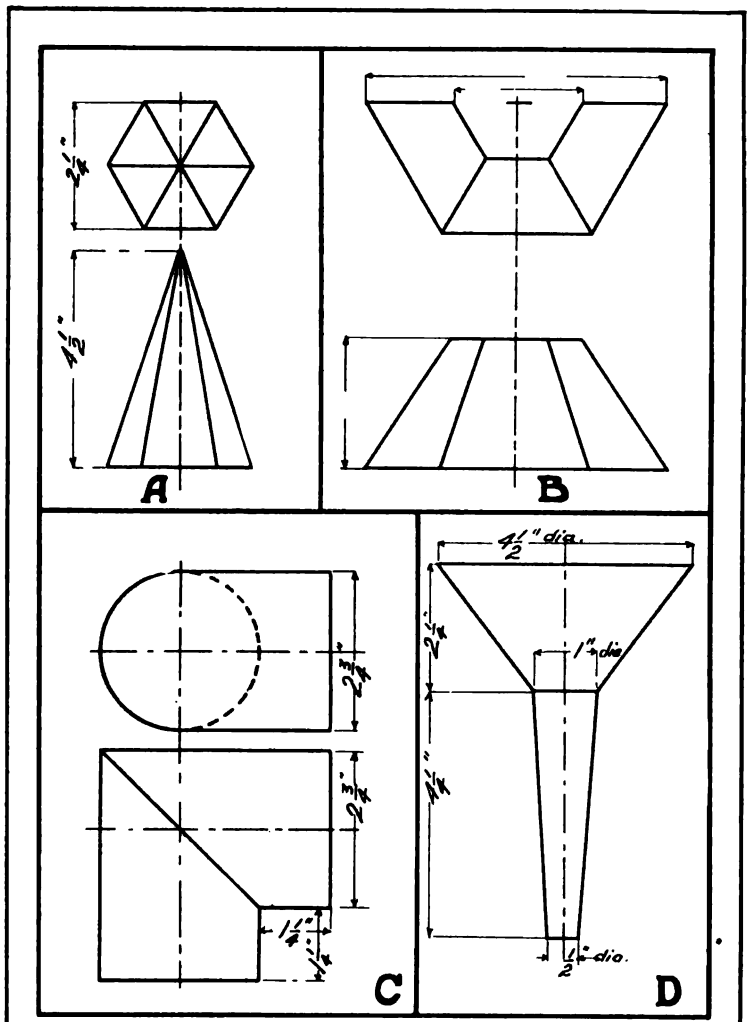
HAROLD HAVEN BROWN
Stuyvesant High School
New York City

MECHANICAL DIVISION

Copyright reserved by the Taylor-Holden Company.

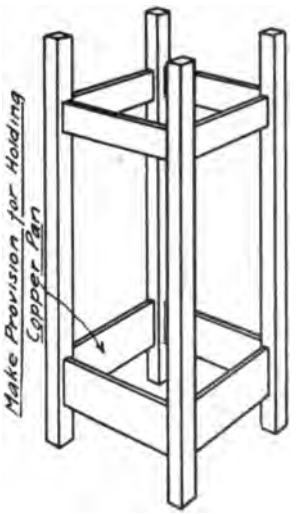
The Hexagonal Pyramid.

Plate XXIV. Make top and front views, and perspective sketch of the hexagonal pyramid shown in Figure A of the drawing on page 856. What



Permission- Taylor-Holden Co.

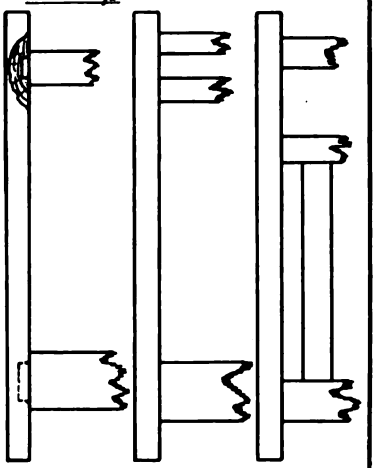
Umbrella Stand.



General Dimensions.

30" High
12" Wide
12" Deep

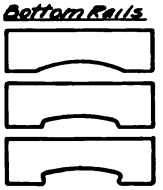
Posts 1½ x 1½"
Rails ¾" thick



Suggestive Designs

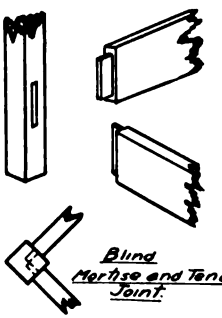
Top Rails

Bottom Rails



Posts.

Arrangement of Rails.



Blind Mortise and Tenon Joint.

Drawn by K. C. Shaw Checked by J. L. Stewart Instructor. Approved by F. M. Hoffman Instructor. 1902	Drawing TECHNICAL HIGH SCHOOL Cleveland, Ohio	No. 6 "C"

length of radius should be used in developing the surface of this pyramid? Calculate the number of square inches in the surface when developed.

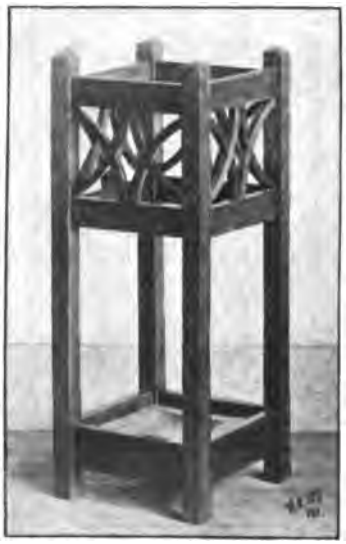


Plate XXV. Make two views and perspective of hexagonal candle-shade suggested by the drawing of the truncated hexagonal pyramid illustrated in Figure B. Make dimensions for size of shade required. Develop pattern and apply suitable design.

Plate XXVI. Make working drawings and develop patterns for the elbow illustrated in Figure C. If 1-4″ is allowed at the seams for lap, how many square inches of tin will be needed to make the elbow?

Plate XXVII. Make working drawings and develop patterns for the funnel illustrated in Figure D. Allowing 1-4″ for lap, how many square inches of tin are necessary to make the funnel? How many funnels can be laid out on and made from a sheet of tin 16″ by 22″?

Plate XXVIII. Design Plate. Umbrella Stand. Make working drawings and perspective sketch. Trace and make blue prints for use in the shop. The drawing on page 857 offers suggestions for designing the umbrella stand and the halftones illustrate results attained by several pupils.

FRANK E. MATHEWSON

Technical High School
Cleveland, Ohio

THE WORKSHOP

WOODWORKING

INDIAN CLUB SWINGER

THIS is an old toy in a new dress. I have seen him along the Maine coast dressed as a sailor and gaily swinging his clubs or paddles. As there is nothing new under the sun we may be glad to greet an old friend in a new costume.

CONSTRUCTION

For the body use a piece of soft pine 3″ x 9″ x 3-4″ or 7-8″ thick. Square the construction lines on one side, across the edges and on the other side, Fig. 4. Cut away the corners A, B, C, D, with a saw and sandpaper the rough edges.

Measurements for the details of head and body and decorations are not given as they would complicate and confuse the drawing. All lines being straight, their position may be determined with dividers and drawn with a ruler or square. Details may be either chip carved with a knife or painted in oil with a fine brush.

In Figure 1 we have the whole set up and in 2 and 3 the lines for back and edge.

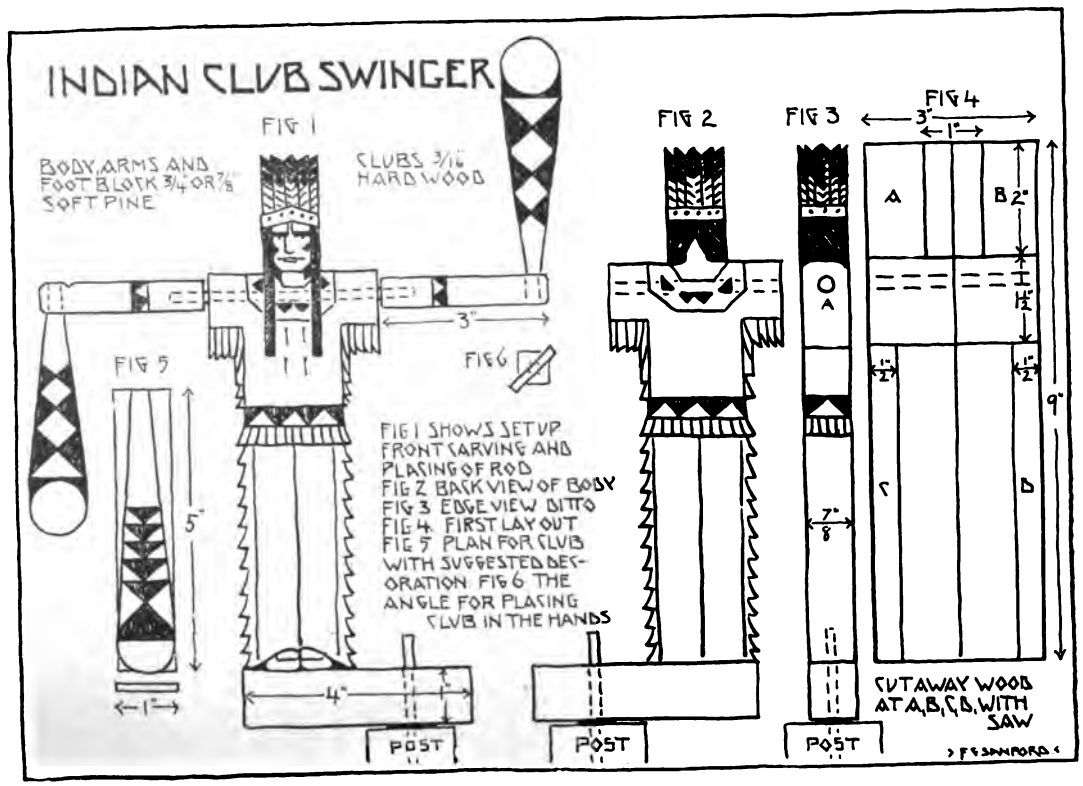
THE ARMS

The arms are made from 3-4″ square sticks, slightly rounded on the corners and at one end. A length of stiff wire about 3-16″ thick or a section of spike about 4 1-2″ long makes the connecting rod. The hole for this is indicated at A, Figure 3, and it must be large enough to allow the rod to turn loosely.

Bore the hole from both sides as straight as may be, and then the chances are better for meeting in the middle and coming out true on both sides. It is well to bore this hole before the carving is done so that in case of accident you do not waste so much labor.

THE CLUB

A plan for the club is given in Figure 5 with another suggestion for a decoration. These clubs should be about 3-16″ thick if of soft wood, thinner if of hard wood. The small end is rounded to fit a small hole bored in the hand. Figure 6 shows the angle for placing. The other club must be reversed in its angle to catch the wind properly. They may be fastened with a small brad or pin thru the hand.


INDIAN CLUB SWINGER
FIG 1
BODY, ARMS AND FOOT BLOCK 3/4" OR 7/8" SOFT PINE
CLUBS 3/16" HARD WOOD
3"
FIG 5
5"
1"
FIG 6
FIG 1 SHOWS SET UP FRONT CARVING AND PLACING OF ROD
FIG 2 BACK VIEW OF BODY
FIG 3 EDGE VIEW DITTO
FIG 4. FIRST LAY OUT
FIG 5 PLAN FOR CLUB WITH SUGGESTED DECORATION. FIG 6 THE ANGLE FOR PLACING CLUB IN THE HANDS
4"
1"
POST
FIG 2
POST
FIG 3
7/8"
POST
FIG 4
3"
1"
A
B 2"
1 1/2"
1 1/2"
C
D
9"
CUT AWAY WOOD AT A, B, C, D, WITH SAW
FESSENDEN

THE FOOT BLOCK

The foot block swings freely upon a nail pivot in a post shown in Figures 1, 2, 3, and the Indian is fastened to this with a nail or screw thru the feet. Bore holes in the arms a little smaller than the rod and drive one end in tightly. The rod is then passed thru the body and the other arm driven on in such a manner as to allow loose play and to cause the two clubs or blades to form a vertical line, the angles alternating.

A color scheme is suggested as follows: Use oil colors. Arms and face, red-brown; shirt, leggings, moccasins, tan; hair and designs on arms, collar, and belt, black; clubs, black and red; feathers, black and white.

FRANK G. SANFORD
Oneonta, N. Y.

WEAVING

A HAND BAG AND A DICKY

PROCESSES. Construction of looms; simple border designs. Use of shed stick and heddle.

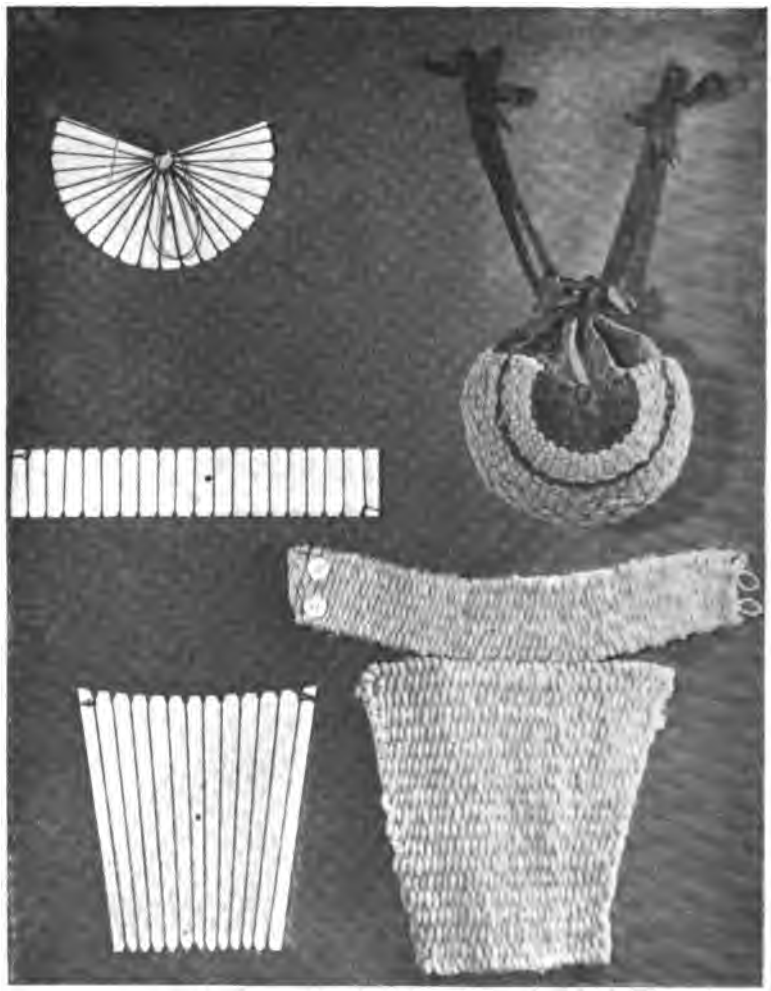
ORAL LANGUAGE WORK. Simple talks on silk (worm, cocoon, raw material, and manufactured articles). Poulsson's "In the Child's World," Watson's "Textile and Clothing," Steiger's "Textile Studies," p. 23, "Silk Worm Culture," Farmer's Bulletin, No. 165.

GIRL'S HAND BAG

MATERIALS. Cardboard for loom; two brass rings 1-2″ in diameter; some yarn and luster thread; any suitable material for lining the bag; a chenille or darning needle.

DIRECTIONS FOR MAKING

On a piece of cardboard draw a circle using a 3″ radius. Draw the horizontal diameter of this circle. From both ends of this diameter, measure one inch up and from these points draw lines to the center, forming two radii. The part of the circle below these radii will be needed for the loom. Cut out the loom and place notches along the circumference one-half inch apart, for the warping. At the center of the circle, on both sides of the loom, baste the two brass rings in place for holding the warp threads. Use the yarn for warping. Begin with a three-yard length. When a new warp is needed, fasten it to the first piece at the circumference of the loom. In beginning to warp,



1. Cardboard loom for a hand bag. 2. Girl's hand bag of yarn, lining of silk obtained from an old umbrella. Colors, tan and brown. 3. Cardboard loom for collar of protector. 4. Cardboard loom for front of protector, 8" long, 6" and 8" wide. 5. Boy's protector of gray roving. Fourth grade work.

tie the yarn to a ring, pass the warp thru one notch and under the loom to the other ring. Continue warping from one ring to the other, placing each warp thread in a notch. The last warp thread will end at the center of the circle. Use the piece of yarn remaining for the weaving exercise, going over and under one ray at a time. Weave on one side first and afterwards on the other. This will leave the woven piece open at the top. Dainty Roman stripes may be introduced by using small quantities of luster thread to form the semi-circular bands of color. When the weaving has been finished, cover what has been left exposed in the brass rings with yarn, using a buttonhole or a blanket-stitch, and remove the woven piece from the loom.

Be careful not to draw the weaving threads too tight or the work will "pull in." Keep the thread generously loose and rather free. When the woven piece has been removed from the loom, place within it a bag made of any suitable material—silk, soisette, silkoline, or sateen,—and sew or baste into place.

For this bag cut a piece of cloth 8″ x 18″. Fold over, and join the two sides (9″) to within three inches of the top. Use the three inches which have been left open to turn down a hem. After the hemming, place a half-inch casing to hold the ribbon or cord and to draw the bag together. After the bag has been made, place the woven part n position and sew the two pieces together.

By varying the colors used this exercise lends itself to a variety of interesting patterns. The woven piece can also be made of raffia and the lining of silk. Discarded umbrella covers furnish desirable material for the linings.

BOY'S DICKY OR PROTECTOR

MATERIALS. Cardboard for a loom, strong cord for the warp, and yarn or roving.

DIRECTIONS FOR MAKING

Construct a loom in the form of the toboggan cap, equal sides measuring 8″ and unequal sides 6″ and 8″. Place sixteen perforations or notches in the unequal sides for holding the warp.

Warp with a strong cord on one side only. Use yarn or roving for the woof and weave from side to side with a selvage. Begin and finish off as in previous exercises. Boys can make their own needle for weaving, as well as the loom. Make the collar separately, using a cardboard loom the desired length and width. Warp with cord, using 1-2″ spaces. When the two parts have been removed from the loom, sew them together with cord and a darning needle. Finish at the back with two buttons and loops or with tailor's hooks.

In all exercises for personal use, let the pupil study the selection of color in its relation to other articles of wearing apparel.

KATHARINE FRENCH STEIGER
Director of Domestic Art
Rochester, New York

NEEDLEWORK

DAISY COSTUME

"Come, my Corinna, come; and coming, mark
How each field turns a street, each street a park
Made green and trimmed with trees; see how
Devotion gives each house a bough
Or branch; each porch, each door, ere this
An ark, a tabernacle is
Made up of white thorn neatly interwove;
As if here were those cooler shades of love.
Can such delights be in the street
And open fields, and we not see't?
Come, we'll abroad; and let's obey
The proclamation made in May:
And sin no more as we have done by staying;
But, my Corinna, come, let's go a-Maying." —Robert Herrick

Barring Christmas time there is probably no season of the year which has been written about quite as much as Spring-time, particularly the first of May, commemorating as it does, the outbreak into beauty of all Nature, after the barrenness of winter.

The Romans celebrated this season with their Floral games, the festivities beginning on April 28th, and lasting for several days, and from this time the celebration of the season has continued, altho the last century marked the decadence of the custom somewhat in the countries in which the day had formerly been observed to a great degree.

We have to study the history of the 16th century in England to see the observance of May-day in its fullest development. The day was celebrated with all manner of sports, music and dancing, and it was customary for the middle classes to go forth early in the morning to gather flowers and hawthorn branches, for garlands to decorate the doors and windows of all the houses. This was called "bringing home the May," and is referred to by Chaucer in his Court of Love. "Forth goeth all the court, both most and least, to fetch the flowers fresh."

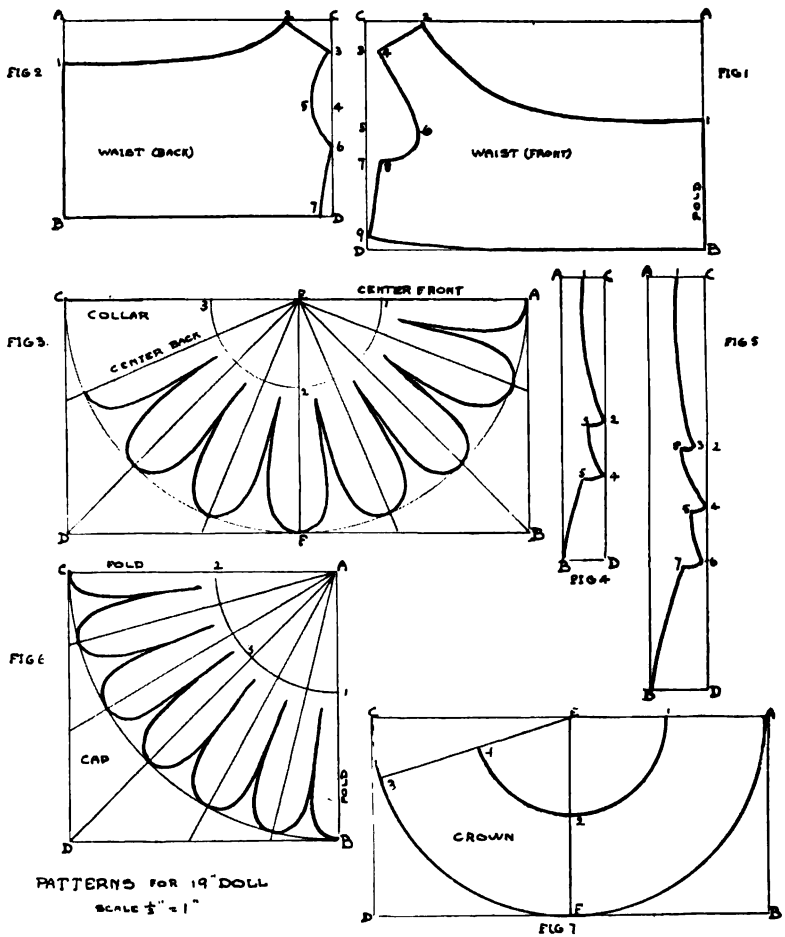
It was also the custom to erect in every village and town, a high pole, called the May-pole, and on the first day of May this pole was decorated, and the young men and maidens danced about it during the day and evening. A May-Queen was chosen to whom all paid homage during the festivities, this no doubt being a custom handed down from the Romans who performed rites to the goddess Flora, during their spring celebrations. We still have this idea carried out in selecting a queen for the floral fêtes held in the West, and South, in our own country.

Villages tried to outdo each other in the size and decoration of their May-poles and of a number erected in London, one had a most curious and interesting history. During Cromwell's time Parliament ordered all May-poles removed and enforced this ruling by severe penalties, but with the Restoration the observance of the day was permitted again, and the people, bent on celebrating May-day, 1661, in an appropriate manner, determined to place the largest pole obtainable in such a position in the Strand that it would readily attract attention. They carried out their plans with great ceremony, with processions and flags and music, and one of the lanes thru which the pole was carried was called Maypole Alley.

An old letter descriptive of May-day, 1610, is as follows: "Last night I slept but ille soe was awake in the dawne of day, and forth to coole my brayne in the freshe dewinesse of the earlie morne. There was a tumult of sweete sound from the throat of a thousand birdes till alle the ayre both far and neare, was fulle of theire jubilate and all the breath of the morn was laden with the bitter fragrance of Maye (hawthorn).

"They have deckt the village alle out, lintel and beame, with those blossoms, and all is joyousnesse and mirth. Today I went forth with John to behold them raise the May-pole, all bedeckt with flowers, and streaming ribands wreathed upon greate hoopes hangyinge from the top of the pole. This they raised with vast shoutings of merrie voices. This done, sundrie youths and maydens took each one riband that hung from the pole, and with music danced in and out and back and forth, but ever around the pole, and nigher it, till with their dancing they had woven the ribands into prettie patterns from the top to the bottom, manie standing around watching the joyous sight."

In American Colonial life May-day festivities had little place, for the Puritans did not approve, either of the May-pole, or of the May games. In England their ill feeling had been due both to political and religious strife, and the fact that the games had been allowed in Catholic times was sufficient to condemn them as idolatrous, and this antagonism extended to the Colonies



and, altho the customs were renewed in England after the Restoration, the Puritan spirit still prevailed in the colonies, and life was too much of a struggle to indulge in frivolous pleasures.

We are living in the twentieth century now, but have we not much to learn from these by-gone customs? At the present time, with all its furore for outdoor life and sports, we are seeing a slight revival of the idea in the outdoor pageants and fêtes which are occasionally held in the spring.

The Westchester County (N. Y.) pageant held in the woods at Bronxville last May, was a marvellous example of what can be accomplished out-of-doors, and a spectacle never to be forgotten by those of us fortunate enough to witness it. So thoroly did the sprirt of the pageant, (which illustrated the history of Westchester County from 1600 down to the present), pervade the little village, that it seemed perfectly natural to see the men and matrons, and the young men and maidens in their quaint costumes, coming from the houses, and walking thru the narrow lanes and roads to the opening in the woods, where the performance was held. We, in our twentieth century costumes, hastening to and from the trains, were the ones who seemed out of place,—the discordant note.

The festival given by Greenwich House, in New York City last spring, was a notable example of what could be accomplished in a city. In this case, Jones street, a short street on which Greenwich House is situated, was roped off, and the performance took place in the street, with the audience occupying door steps, windows and fire escapes. Where there is a will there is certainly a way!

What an opportunity May-day gives us for the drawing classes to design costumes representing the spring flowers. Think over just what colors seem most appropriate to you for a flower dance around the May-pole.

DIRECTIONS FOR DAISY COSTUME

The costume depicted this month represents one of the spring flowers, the daisy, a costume suitable for a flower dance around the May-pole. The colors used in the doll's costume are a green silkoline for the dress, with white collar, representing the petals of the flower, with a band of yellow next the neck. The cap represents the flower, the white petals forming the brim, and the calyx and leaves the crown.

Figure 1. Front of waist. Paper 6″ x 4″. Place and letter as in chart. Point 1 = 1 3-4″ from A. Point 2 = 5″ from A. Draw freehand curve for neck, making a full, deep curve, as it is for front neck. Point 3 = 1-2″ from C. Point 4 = 1-4″ from 3. Point 5 = 2″ from C. Point 6 = 1″ from 5. Point 7 = 2 1-2″ from C. Point 8 = 1-4″ from 7. Draw curve for armseye 4-6-8. Point 9 = 1-4″ from D. Draw under-arm seam, 8-9.

Figure 2. Back of waist. Paper 4 3-4″ x 3 1-2″. Place and letter as in chart. Point 1 = 3-4″ from A. Point 2 = 4″ from A. Draw freehand curve for neck, making curve more shallow than for front. Point 3 = 1-2″

from C. Point 4 = 1 1-2″ from C. Point 5 = 3-8″ from 4. Point 6 = 2 1-4″ from C. Point 7 = 1-4″ from D.

Figure 3. Collar. Paper 4″ x 8″. Place and letter as in chart. Divide in center by line E F. With center at E and radius E A, draw circle for construction. With same center, draw another circle with radius E-1 = 1 1-2″. Divide circle as in chart, and draw petals freehand.

Figure 4. Leaf. Paper 3-4″ x 5″. Place and letter as in chart. Point 1 = 1-2 of line A to C. Point 2 = 2 1-2″ from C. Point 3 = 1-4″ from 2. Point 4 = 3 1-2″ from C. Point 5 = 3-8″ from 4.

Figure 5. Large leaf. Paper 7 1-4″ x 1″. Place and letter as in chart. Point 1 = 1-2 line A to C. Point 2 = 3″ from C. Point 3 = 1-4″ from 2. Point 4 = 4″ from C. Point 5 = 1-4″ from 4. Point 6 = 5″ from C. Point 7 = 1-2″ from 6. Point 8 = 1-4″ from 3.

Figure 6. Cap. Paper 4 3-4″ square when folded four double. Place and letter as in chart. With A as center, draw two circles, one radius A-B, and the other radius A-1 = 2″. Divide circle as in chart, and draw petals freehand.

Figure 7. Crown. Paper 7″ x 3 1-4″. Place and letter as in chart. Divide by line EF. With E as center, draw circles with radius EF, and E-1 = 1 3-4″.

In making this costume, cut all material with lines AB (or EF) of patterns lengthwise straight of goods, cutting AB of front of waist on a lengthwise fold. Allow for hems on back of waist. Gather waist to fit neck of doll, and face neck with bias facing. Cut out neck of collar at inner circle. Place piping of yellow inside neck. Face armseye with bias facing. Cut four large and six small leaves for each armseye, sewing them on from the wrong side, two large leaves at under-arm seam, and two at shoulder, and three small leaves at each side of armseye, so that they will fall over the arm instead of sleeves.

Gather bottom of waist into band required size for waist, and also gather straight full skirt into same band, making skirt ankle length. Draw the cap pattern on pure white paper and paste pattern onto white lawn before cutting out petals. After cutting petals, curl them over pencil. Cut head size at inside circle. Paste crown of cap onto green material before cutting. Fasten edges 1-A and 3-4 of crown together, then fasten petal portion to crown. Cut six small leaves for crown and fasten to center opening so they will fall over calyx portion. For a full size (10 or 12 years) multiply these dimensions by three.

BLANCHE E. HYDE
Director of Household Economics
Newton, Massachusetts

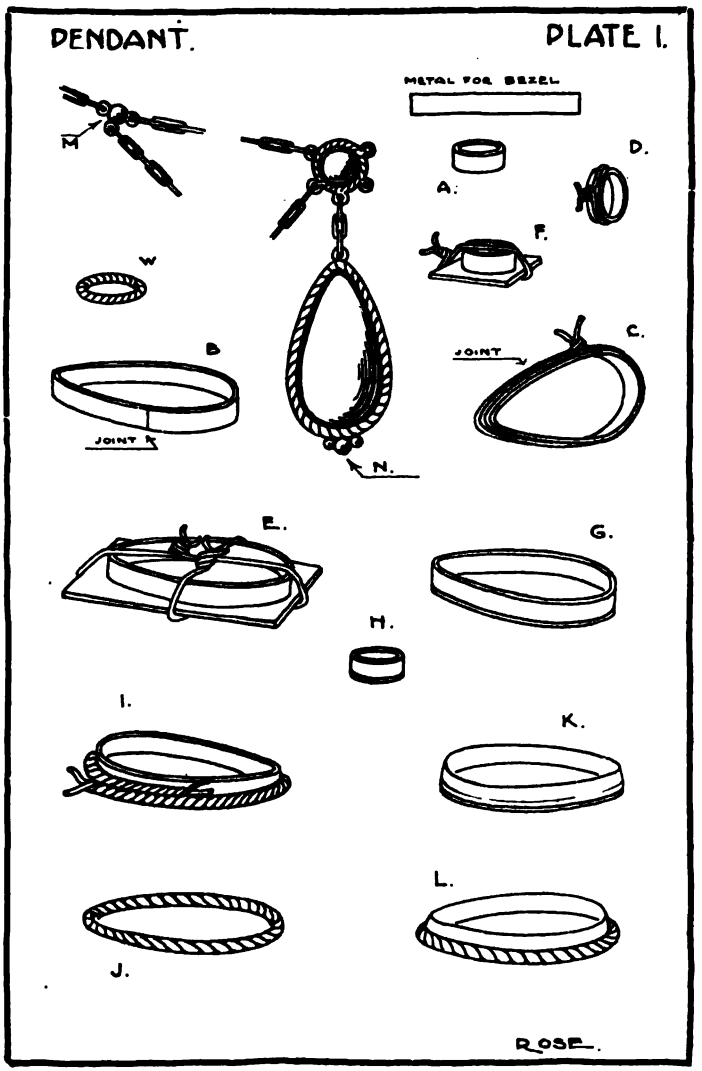
METALRY

PENDANT

The first things necessary for this problem are the two stones which form the central feature of the pendant. The ones used in the illustration are pieces of shell pearl. This kind of pearl is inexpensive and looks very well when set in silver. Having the pieces of pearl or whatever we may choose for the central unit, a cup setting is made for each piece. In making these settings the bezel

is first made for each stone from No. 24 gauge silver 1-8 of an inch wide. After cutting the strip the right width it is bent around each piece of pearl to get the exact size. Mark at the point where it is to be cut, remove the pearl and cut on the mark. We now have the two bezels shown at A and B. Plate I. Bind each of these bezels with the binding wire and solder the joints, C, D. One face of the bezel is next filed level and soldered to a piece of No. 22 gauge silver, E and F, which is to form the back of the setting. After soldering, the two settings should be pickled to remove the borax. Next saw around the bezel within 1-32 of an inch of the soldered joint. The edges are then filed to the bezel as shown at G and H.

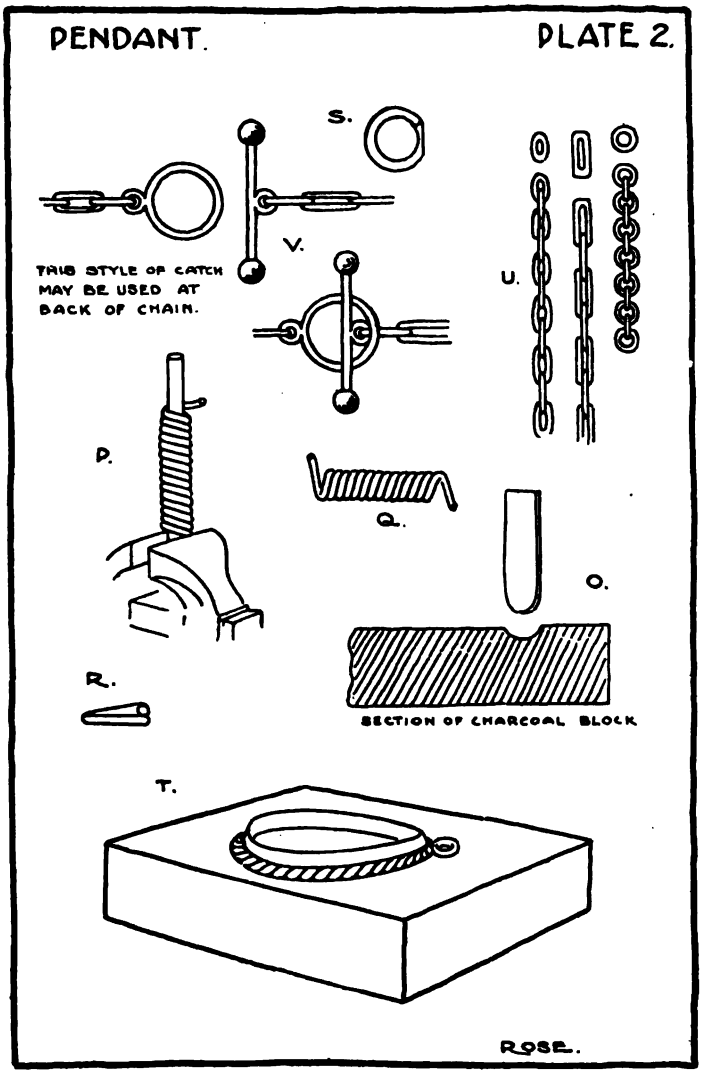
As the design calls for a twist about the settings, we take a piece of No. 24 gauge silver wire twice as long as the distance around the settings, double it, place one end in the vise and twist. See January Workshop. Plan to have enough wire to make the twist for both settings at the same time. After the


PENDANT.
PLATE I.
METAL FOR BEZEL
M
A.
D.
F.
W
C.
JOINT
B
JOINT
N.
E.
G.
H.
I.
K.
L.
J.
ROSE.

twist is made and a little solder is run along the twisted wire, it is bent around each bezel to get the exact size, Fig. 1, before it is cut. The cutting here should be done with the saw as it will leave the ends of the wire square and make a better joint when soldered. After the joints are soldered we have two rings, Figs. J and W. The top of each bezel is next filed down to the right height and beveled to an edge as at K. The twisted rings are now placed over the bezels as at L and soldered in place. Care should be taken to have the twist come in line with the back at all points. If the twist has been made to fit tightly it will stay in place, without the use of wire, while being soldered. In soldering this, several small pieces of solder should be placed along the twist for the solder will not flow along the wire freely as it does not come in contact with the bezel at all points. The solder will flow up and around the wire instead of along the joint. The soldering should be watched quite closely at this time and the flame kept away as much as possible from the other soldered joints to prevent their unsoldering.

We now make the five small balls that are shown in the design at M and N. To make these balls, first make a small depression in the top of the charcoal block about 1-4 of an inch in diameter and about 1-8 of an inch deep, Fig. O. Take a small piece of copper, 18 or 20 gauge, and file one end semi-circular; hold it against the charcoal block and with two or three turns of the hand the depression is made. Care should be taken to give the depression a smooth surface. Now take a small piece of the scrap silver that was sawed from the edge of the bezel and place it on the charcoal block over the depression; with the blowpipe, heat the silver to the melting point and it will roll up into the depression and take the shape of a ball. A little experimenting with different sizes of scrap metal will enable one to get just the size wanted. After making the five balls needed we next make the small rings that connect the chain with the bezels and with two of the balls. As there are twelve of these rings needed and as they are the same size, they can all be made at once. Take a small wire nail about 1-16 of an inch in diameter or a piece of an old knitting needle and fasten one end in the vise together with one end of a piece of No. 24 gauge silver wire. Holding the other end of the wire with a pair of plyers, coil it about the nail or needle until twelve or fifteen turns have been made, Fig. P. Taking it out of the vise and slipping the coil from the nail leaves it in the shape of a small spring, Q. Now with a fine saw the rings are sawed apart. See September Workshop. The rings are now as at R. Using the plyers the ends are given a slight twist to bring them in line with each other.

The rings are now soldered to the bezels and the balls. Before soldering, however, each ring should be filed a little flat, as at S, where it comes in contact


PENDANT.
PLATE 2.
S.
V.
THIS STYLE OF CATCH MAY BE USED AT BACK OF CHAIN.
U.
P.
Q.
O.
R.
SECTION OF CHARCOAL BLOCK
T.
ROSE.

with the bezel. The filing is done just a little to one side of the joint which has been left unsoldered so that it can be opened to receive the chain when ready to put together. The rings are so small that they should be held with the plyers while the filing is done. When the rings are ready, the bezel is placed on the charcoal block, Fig. T, and the ring put in place. Coat the joint with thin borax and place a small piece of solder over the joint. The flame from the blowpipe is next applied and the soldering is completed. The bezel that requires five rings and the balls with three may all be soldered at the same time. If the borax used is too thick it will be difficult to keep the rings in place. The three balls are now soldered in place at the bottom of the large setting. When this is done all parts are pickled.

The stones are set as described in the November Workshop. The parts are next linked together with the chain. Anyone making this pendant may make the chain also, but the writer suggests that a commercial one be used for the first piece of work of this nature. Those who desire can make the chain in the same way that the small rings were made. The shape of the link is determined by the shape of the arbor that the wire is wound on. This arbor may be round, oval, or rectangular, making chains as shown at U. A commercial catch may be used at the back as shown in the illustration or one may be made as shown at V. The chain and settings may be oxidized a little to give them a gray finish which looks very well with the pearl.

AUGUSTUS F. ROSE
Boston, Massachusetts

HELPFUL REFERENCE MATERIAL

FOR MAY WORK

Plant Drawing

Decorative Plant and Flower Studies, J. Foord; A Handbook of Plant Form, Clark; Plant Form and Design, Midgley and Lilley; Sketching Trees in Pen and Ink, Rice, Book, April 1907; Trees in Silhouette, Bailey, Book, September 1908; Alders, Poplars, and Willows, Weed, Book, April 1908; Prang Text Books of Art Education; Adaptation, Bailey, Book, May 1907; Plant Drawing as a Mental Discipline, Anthony, Council Year-Book, 1902; The Drawing of Plant Forms, Sargent, Book, June 1902; Leaf Drawing, Daniels, Book, September 1903; Perspective of Leaf and Flower, Hall, Book, September 1902; Acceptable Plant Drawing, Bailey, Book, September 1905; Whitney, Book, March 1902, April 1902; Sargent, Book, May 1907; Outlines, Book, March and April numbers each year.

Adaptation

Bailey, Book, May 1907; Council Year-Book, Haney, The Adaptation of Pattern to Material, 1907; Haney, The Use of Natural Forms in Design, 1906. Also articles which appeared in The Manual Training Magazine for 1905-1906.

Rosettes

Stimson, The Gate Beautiful, pp. 280-287; Seegmiller, Applied Arts Drawing Books, V, p. 33.

Florets

Miss Clough, Book, June 1906; Frontispiece, Book, May 1908. Any type catalog; any book on Historic Ornament. Dow, Theory and Practice of Teaching Art.

Animal Drawing

Animal Drawing, Rimmer; Art Anatomy of Animals, Ernest Thompson Seton; Line and Form, Walter Crane; Seiho's Guide to Drawing, Matsuki; Japanese Birds and Animals, The Davis Press; Prang Text Books, section "Life and Action." Life Drawing, Hall, Book, March 1905, April 1905; Finley, Book, April 1905; Blackboard Animal Drawing, Daniels, Book, September, October and November 1906, and February 1907; Animals That Will Stand, Bailey, Book, March 1908; Animal and Bird Drawing, Keller, Book, March 1909.

APRIL

Excavations at Pompeii systematically begun by the State, 1784. These have revealed, besides hundreds of other works of art, some of the most exquisite metal work in the world.

1 FRI ◔ **Edwin A. Abbey b. 1852.**
Painter of the Sir Galahad pictures in the Boston Public Libry

2 SAT ◑ **William Holman Hunt b. 1827.**
Helped found the Pre-Raphaelite Brotherhood.

3 ✠ ◑ **John Burroughs b. 1837.**
Good citizen and husbandman. Friend and chronicler of bird and beast. Said: Knock at any door in the universe, the Eternal is there to answer.

4 MON ◑

5 TUE ● **Jules Dupré b. 1811.**
French landscape painter. Delighted in the play of clouds in the heavens ··· Light is the charm of his pictures. *Van Mook.*

6 WED ●

7 THU ● **Gerard Dou b. 1613.**
Dutch genre painter. Master of detail.

8 FRI ●

9 SAT ●

10 ✠ ●

11 MON ●

12 TUE ●

13 WED ●

14 THU ◕

15 FRI ◕ **Théodore Rousseau b. 1812.** Of the Barbizon School.
He has left us the great trees of Fontainebleau ever green.

The Sap

Strong as the sea, and silent as the grave
It ebbs and flows unseen.
Flooding the earth – a fragrant tidal wave,
With mist of deepening green. *John B. Tabb*

The raindrops' showery dance & rhythmic beat
With twinkling of innumerable feet. *Cobb.*

Wordsworth b. 1770.
English poet who aimed "to give the charm of novelty to things of every day."

Has Nature in her calm majestic march
Faltered with age at last? does the bright sun
Grow dim in heaven? or, in their far blue arch
Sparkle the crowd of stars, when day is done,
Less brightly? When the dew-lipped Spring comes on,
Breathes she with airs less soft, or scents the sky
With flowers less fair than when her reign began?
Bryant.

All at once I saw a crowd,
A host of golden daffodils;
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze.

And oft, when on my couch I lie
In vacant or in pensive mood,
They flash upon the inward eye
Which is the bliss of solitude;
And then my heart with pleasure fills,
And dances with the daffodils.
Wordsworth.

Summer is coming,
is coming.
I know it, I know it,
I know it;
Light again, leaf again,
life again,
love again!
Tennyson.

Nature is a mutable cloud which is always and never the same. *Emerson.*

APRIL

Italian goldsmith, sculptor, architect, capped the Cathedral of Florence with a famous dome.
Brunelleschi d. 1446.

16 SAT — **Mme. Le Brun b. 1755.** French portrait painter. Her own best model. **Ford Madox Brown b. 1821.** English historical painter. Foster-father of the Pre-Raphaelites.

17 ✠

Oh, to be in England Now that April's there
And whoever wakes in England, *(says Browning)*
18 MON — Sees, some morning, unaware,
That the lowest boughs and the brushwood sheaf
Round the elm-tree bole are in tiny leaf, While the chaffinch sings on the orchard bough
19 TUE — **Paolo Veronese d. 1588.** In England,—now!
Of the sumptuous Venetian school: joyous lover of magnificence.

20 WED — **Daniel Chester French b. 1850.** American sculptor.

I come, I come; ye have called me long.
I come o'er the mountain with light and song:
21 THU — Ye may trace my steps o'er the wakening earth,
By the winds that tell of the violets' birth,
By the primrose stars in the shadowy grass,
22 FRI — By the green leaves opening as I pass.
Mrs. Hemans.

23 SAT — **Shakespeare b. 1564. d. 1616.** **Turner b. 1775.** The Wagner of the brush. Master of the Sky.
For he on honey dew hath fed
And drunk the milk of Paradise,
24 ✠ — .... Our myriad-minded Shakespeare. *Coleridge.*
Now you who rhyme, and I who rhyme,
Have we not sworn it many a time,
25 MON — That we no more our verse would scrawl,
For Shakespeare he had said it all.
Richard Watson Gilder.

26 TUE — **Eugène Delacroix b. 1799.** French historical painter.

Jack Frost has scarcely left the vale,
27 WED — When lilies far and near
Call quickly to the Springtime feast;
28 THU — Their bells ring doubly clear.

I'll stay no longer in the house;
The lilies call me too;
29 FRI — Sweet flowerets dancing out-of-doors,
I come to dance with you.
From the German by Mrs Anderson.

A dry March and a dry May portend a wholesome summer, if there be a showering April between.
Sir Francis Bacon.

30 SAT — **Edouard Manet d. 1883.** French painter.
The founder of Impressionism.

FRIENDLY TREES

I will sing of the bounty of the big trees,
They are the green tents of the Almighty,
He hath set them up for comfort and for shelter.

* * * * * * * *

How fair are the trees that befriend the home of man,
The oak, and the terebinth, and the sycamore,
The fruitful fig-tree and the silvery olive.

In them the Lord is loving to His little birds,—
The linnets and the finches and the nightingales,—
They people His pavilions with nests and with music.

The cattle are very glad of a great tree,
They chew the cud beneath it while the sun is burning,
There also the panting sheep lie down around their shepherd.

He that planteth a tree is a servant of God,
He provideth a kindness for many generations,
And faces that he hath not seen shall bless him.

* * * * * * * *

HENRY VAN DYKE

EDITORIAL

PATRIOTS' Number, this is called for several reasons. April has been an eventful month in our history. Some of its happenings we should remember and teach our children to remember forever; some we would all better forget as soon as we can. In our schools thruout the country let us ever emphasize

Battle of Lexington. A drawing by G. Penney, III, Somerville, Mass.

the events every State in the Union can applaud. Let us help to bring about the time when in April the whole nation shall heartily rejoice together over such events as these, all falling in this prophetic month:

1513, The discovery of Florida.
1524, The discovery of New York Harbor.
1606, Signing of the Patent of James I, establishing "The Two Companies."
1689, Organization of The Council of Safety.
1765, Opposition to the Stamp Act begun in the Colonies.
1775, Battles of Lexington and Concord (April 19th).

1776, North Carolina authorized its delegates to join in a declaration of independence.
1783, Independence of the United States first recognized by Holland. Peace proclaimed by Washington (April 19).
1789, George Washington inaugurated, first President.
1792, First United States Mint established, in Philadelphia.
1803, The Louisiana Purchase.
1812, Declaration of war with Great Britain.
1846, Declaration of war with Mexico.
1865, Peace re-established.
1889, Opening of Oklahoma.
1898, Declaration of war with Spain (April 19).

From the foregoing some of the reasons for selecting April nineteenth as Patriots' Day are manifest. On that date we took up arms for our own freedom, we were first recognized as free, and we declared that freedom should be the portion of our oppressed neighbor, Cuba, and thereupon were recognized as a world power.

¶ But more and more should we interpret patriotism in terms of peace. Patriotism now means loyalty to the eternal standards of truth and beauty and service, in school life first, and in all life thereafter. It means the conservation of public utilities, from school supplies, to building supplies, food supplies, and supplies for the eager human spirit, ever searching for the beautiful. It should mean, among other beneficent activities, the observance of Arbor Day. The exact date may vary from February twenty-second in Alabama, to the second Tuesday in May in Montana, but at the success-ological moment, whenever it is, the day should be observed. In Massachusetts and twenty other States the day falls in April; in ten others in May. April is therefore the best month in which to consider it here.

Send to the American Civic Association* for leaflets giving Arbor Day Programs. If possible, secure copies of pamphlets

* Address, 703 North American Building, Philadelphia, Pa.

published by the State of New York, the State of Massachusetts, the State of Rhode Island* or by the Shade Tree Commission of the City of Newark, New Jersey. This Commission has done things the whole country should know about.† Begin to gather

information from local sources. Learn to know intimately the handsomest, the oldest, the most famous trees in your locality.

* Address, State Board of Education, at the State Capitol.

† The following letter shows the spirit of the Commission:—

Dear Sir:— Newark, N. J.

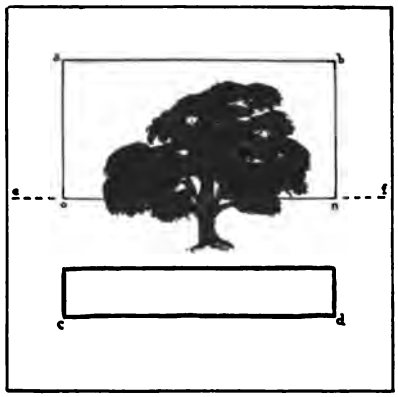
I thank you for your note of the 6th inst. Up to date we have responded with absolute cordiality to every request that has been made for our literature. We will gladly honor the requests made by your readers as long as the supply holds out.

The leaflets were printed for the purpose of encouraging the setting out of trees and the Commissioners are more than willing to have them do good in other States and cities, even tho they were gotten up specifically for Newark.

Very truly yours,

Carl Bannwart, Secretary.

Tell the children about them; take the children to see them; have sketches made from these wonderful colonies of living buds. Read the Psalm of Friendly Trees, by Henry Van Dyke, a part of which is reprinted on page 878;* read it to the children. If you have within walking distance any such trees as the Royal Oak, the Giant Cherry, the Great Elm, the Big Tupelo, and the Studley Cedar, which have stood in my town since the oldest inhabitant was born in the person of his great-grandfather, you will have no difficulty in arousing enthusiasm for these "Green tents of the Almighty."



On page 881 is a drawing I made not long ago, from the Studley Cedar. It was made for an advertising circular for the Bayfield Shop, (which stands in the same pasture and produces fine handicraft), hence the B. S.; but it will do to illustrate the point I wish to impress, namely, that the famous trees of a place are ideal subjects for lessons in nature study, drawing, and language, with supplementary work in arithmetic, history, color, and design. This particular patriarch is about five hundred years old, and as vigorous as ever. He stands in a narrow valley thru which a spring sends its waters to Forget-me-not Brook, and so down to the sea. He gets his share—the lion's share now-a-days—of all the good things passing his way; not only water and rich deposits of leaf mold, but sunshine and fresh air,

*From Out-of-Doors in the Holy Land. Published by Charles Scribner's Sons, New York.

birds and bees. Almost every generation during the last two hundred years, has taken honey out of some part of his hollow trunk. In fact, in one side, high up, is a section, some ten inches square, which may be removed and replaced at will, to facilitate the robbing of the wild bees within! For those having eyes to

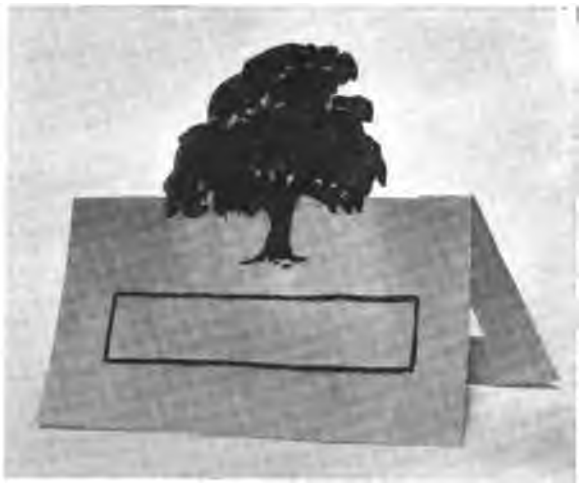


Plate IV. An Arbor Day souvenir or announcement.
Primary grade work.

see, the history of an eventful life, longer than that of this nation, is plainly written in the features of this veteran. As a preparation for interpreting the life-history of any local tree, read the Story of a Thousand-year Pine in Wild Life in the Rockies, by Enos A. Mills.

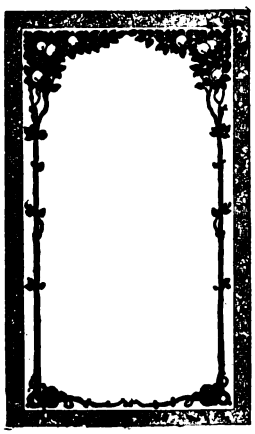
The drawing of the king trees of the neighborhood will furnish material suitable for adaptation to the covers of Arbor Day programs and souvenirs. One of the best ideas for a souvenir or invitation came to me from Miss Abbie Chellis of Keene,

Plate V. Pen drawing of a Canadian pine. By Walter Sargent.

N. H., in the form of a Christmas card by Irene Buzzell, a little girl of eight years, in Winchendon, Mass. An adaptation of this design is shown in Figure 3. On a square of stiff paper, six inches on a side, draw lightly an inclosing form, a b c d, three-quarters of an inch from top and sides, and one inch from the lower edge of the sheet. Within this make the silhouette of a tree, in ink, or better, in color. Draw the line o n, a horizontal diameter of the sheet. With a knife or scissors cut out the background of the tree within the boundaries a b o n. Fold the frame backward from the tree on the line e f. The result is shown at Plate 4, the tree standing, supported as upon an easel. The lettering desired may be placed within the rectangular space c d.

¶ A good rendering of a tree such as that in ink, Plate 5, or that in pencil, Plate 6, by Professor Walter Sargent, of the University of Chicago, is worth careful study, and if thoughtfully copied, might help the pupil to handle his medium more intelligently in drawing from

Plate VI. Pencil drawing of a giant red oak tree. By Walter Sargent.



nature. Both these drawings are from nature; the one from an old Canadian pine, the other from the Royal Oak, North Scituate, Massachusetts.

¶ These may be compared with trees rendered as decoration. The three examples on this page are from my box of clippings. I do not know the names of the designers. The first makes use of the external aspect of the tree; the second of that view which one gets from under the tree looking up into its dark shade; the third is a silhouette of leaves and fruits. The illustration on page 887 makes use of the silhouette of the entire tree. The two illustrations on page 888 are from the work of Will Bradley, and exhibit unique interpretations of tree forms.

¶ But the humbler plant forms will begin to receive attention during April. Let me commend to every teacher the new Spring Packet, just issued by the Davis Press, to help us to see more clearly and interpret more happily the exquisite forms of the early growths. The drawings are by Mr. James Hall, Director of the Department of Art, Ethical Culture School, New York. One of these drawings appeared in the March number; another appears as the frontispiece to this number.

To compare such drawings with those advocated by Miss Agnes Farnam of Leicester, England, in her articles on the Meaning of Line, in the Practical Teacher, is instructive. Some of those plates are reproduced on page 889. They reveal a precision of drawing not often achieved even by professional drawing teachers!

¶ The cover stamp this month is from the slabs of limestone found by Dr. Schliemann above the astonishing grave at Mycenae, whose wealth of rare treasure caused it to be hailed enthusiastically as the burial place of Agamemnon. It was without doubt a royal tomb, and the character of the golden ornaments, weapons, and vases therein discovered goes far to substantiate the theory that Mycenae was one of the impregnable outposts of the old Minoan Empire, ruled from sea-girt Crete. The original from which this was taken is a circle of some four feet in diameter, the spirals carved in low relief. The geometric basis of the figure is the regular hexagon, a favorite with the Minoans. Upon each angle of the hexagon is turned an equable spiral, all of the

spirals being constructed so that the whole pattern is formed by one continuous band. The spirals are turned cleverly at such an angle that the natural distortion of a spiral of this sort is counteracted as much as possible by optical illusion.

THIS WISE AS AN ADVERTISEMENT
DRAWING, THE WORK OF WILL BRADLEY, ISSUED IN
SOME EXAMPLES OF PRINTING AND
Decorative rendering of Trees
By Will Bradley.

¶ The three animal tail-pieces are reduced from Japanese Decorative Stencils imported and sold by Atkinson, Mentzer & Grover. The odd flowering shrub is from a design by "O. M. T." published by the Rust Craft Shops of Kansas City. The old cedar is from a photograph of a tree on the southern California coast, published by the Southern Pacific Railroad.

¶ At this season of the year when graduating classes are considering the matter of class gifts the new publication of the

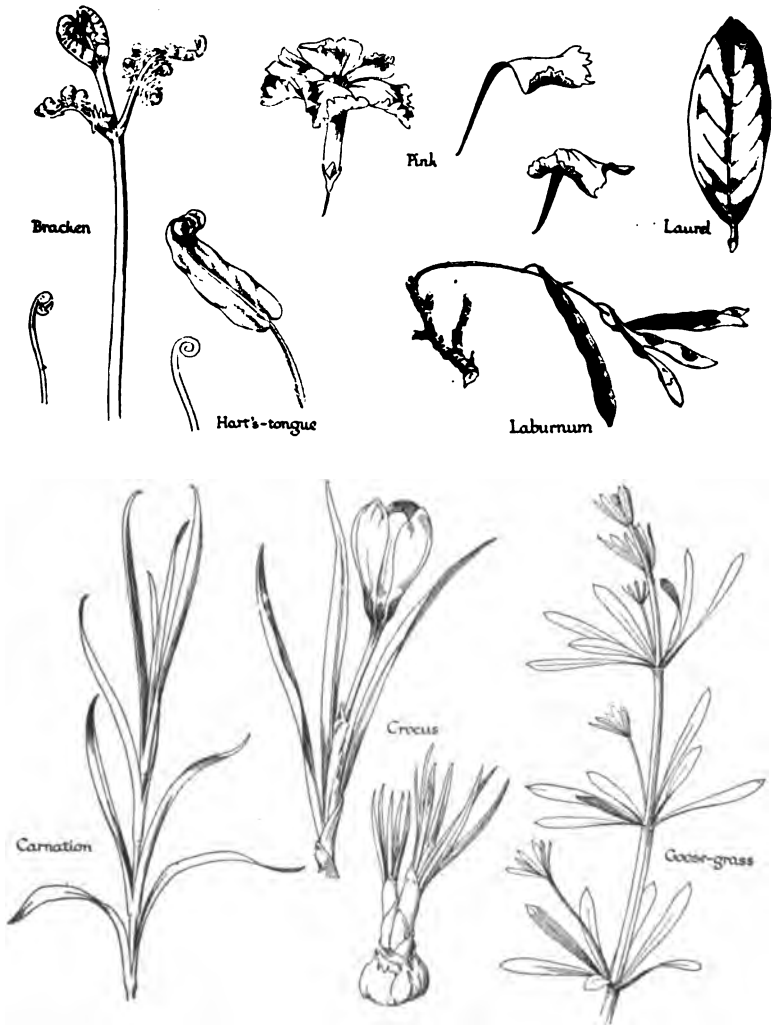


Plate X. Pen drawing, illustrating an article on The Meaning of Line, by Miss Agnes Farman, Leicester, England. Reproduced from The Practical Teacher.

Boston Sculpture Co., entitled "School Room Decoration," is worth seeing. This catalog is different from most publications of this nature in that with practically every cast shown there is given, in addition to dimension and price, a brief history of the original; and also hints as to what might appropriately be selected for schoolroom decoration. The cover of the catalog is reproduced herewith.

¶ During the early part of May will occur the two Conventions. The annual meeting of the Eastern Art and Manual Training Teachers Association is to be held in Boston, May 5, 6, and 7; and that of the Western Drawing and Manual Training Association in Minneapolis, May 10 to 13.

The Western Association offers its usual rich program; general sessions on Tuesday, Wednesday, and Friday, and Departmental Round Tables on Thursday. Among the speakers announced in the preliminary program are Henry Turner Bailey, May Gearhart, Miss Winchell, Louis Bacon, Harry Wood, Oscar McMurray, Walter Sargent, Robert W. Selvidge, Emma A.

Church, Charlotte Reed, Arthur F. Payne, Daniel Upton, Mary S. Snow, Alice Norton, Nellie Crooks, Charles A. Bennett, and John S. Ankeney. Headquarters, Hotel Radisson, 7th Street. Between fifty and sixty cities and towns will send exhibits.

The Eastern meetings will convene in the new Museum of Fine Arts, where morning sessions only will be held. Upon the program few if any of the teachers of drawing and handicraft in public schools will appear. The program is to be "different." Among the speakers will be Mr. Arthur Fairbanks, Director of the Museum; Dr. David Snedden, Commissioner of Education for Massachusetts; Miss Sarah Louise Arnold, Dean of Simmons College; John Enneking, Painter; Arthur D. Dean, Chief of the Division of Trades Schools, New York; Professor Alfred Vance Churchill of Smith College; George deForest Brush, Painter; Dr. and Denman W. Ross, Harvard University. Other speakers are to be a craftsman, a designer and an artist of national repute, whose names are not yet announced. The afternoons will be devoted to excursions to various parts of the city, and to such places as Quincy, Milton, Newton, Wellesley, Brookline, Watertown, Cambridge, Salem, Lynn, Lexington, and Concord, places of historic interest, where local exhibitions will be arranged. The two evenings will be devoted to receptions and concerts. Headquarters, Hotel Westminster, Copley Square.

¶ In the March number of The Inland Printer are several pages of effective poster design by Oscar Hoeppner of Chicago, notable not only for their carrying power and good color but from the fact that the plates were made by Mr. Hoeppner by cutting with a knife the surface of a sheet of patent leather glued to a pine block to bring it to the height of type. Here is an inexpensive medium of bold illustration which might be adopted wherever there is a school printing press.

CORRESPONDENCE

Dear Mr. Bailey: **Toronto, Canada**

I cannot resist the temptation to send you a packet of drawings made by Form 1 Boys (Grades 1 and 2) in the Toronto Normal Model School. The boys are from six to eight years of age. I send you the work of about half the class; the remaining drawings were as good as the worst of those sent. You can tell how unformed the boys are by the way in which the names are signed. It is the spontaneity of their drawings which appeals most strongly to me. [Two, representing extremes, are reproduced herewith.]

From the time I entered the class till I left, the lesson occupied twenty minutes. I have never more than fifty minutes a week (two lessons) with

them. They have been studying sparrows since their last lesson and instead of asking them to paint sparrows, as they expected, I told them that when I was a child I lived in a village and my father used to take me for long walks into the country. One day, after the first snow had fallen, as I walked by his side I was very sorry for the poor little sparrows because there were so many of them and, as they do not fly away south as so many of the birds do, I wondered what was to become of them. Just then we saw a little brown house among the trees and as we walked towards it the door opened and a little boy, in brown velvet, came down the steps with a dish of crumbs. He whistled, and from the trees and everywhere the birds came flying. Some of them picked away busily but others scrambled and fought for the same crumb. Then I said to my father, "Oh, now I know! It is the little brown boy in the little brown house who feeds the sparrows in the winter time."

After the children were told the story they closed their eyes while I asked them if they could see the house, the trees, the boy, etc. After each question they assured me that they could see everything mentioned. They had already

been given paper and brown and black crayons and in ten minutes from the time they began to paint the story the papers were collected.

Of course they pay very little attention to relative size and perspective; these, to them unimportant things, will come later; and some of their sparrows look like rats and some chimneys are tipsy, but the children have expressed themselves freely and joyously. Sincerely yours, Anta Powell.

Dear Mr. Bailey: Rochester, N. Y.

Is the enclosed of any use to you in The School Arts? You are welcome to it if it is.

HOW TO MAKE A MONOTYPE

Monotype. The very meaning of the word itself explains the process to some degree. The dictionary says, it is "A print transferred from a painting on a metal plate; so called because but one can be made."

The process, by which a good result is obtained, is as fascinating as etching or the developing of photographs, yet luck claims a larger share in the monotype than in either of the other two. Your first attempt will undoubtedly be a failure even tho you have followed the rules exactly as stated, but the second one will not have as many faults as the first, I assure you, and so on.

The metal plate referred to can be made of almost any metal and even glass can be used. The idea is to have a smooth surface which will hold the paint temporarily. A piece of zinc, sandpapered on one side, will serve the purpose very well, and cut, of course, as large as you care to have the sketch. The surface should be rubbed with common paint oil to keep the paint from sticking to the zinc. Turpentine will not serve as well in this respect, as it

is a dryer as well as a medium and if used without oil, the thin coat of paint will adhere to the zinc surface. Oil paint from the tube is used for this work, and the dark browns and greens seem to give better results than any of the others.

For the first sketch I would suggest that one take a picture of a landscape and copy it onto the oiled surface of the zinc. To get the effect, every means

A monotype. By F. H. Carpenter.

is allowable, rubbing with the finger, using the handle end of the brush, a cloth wrapped around a pointed stick, and in fact, any way to get darks and lights. If the paint proves to be too loose on the zinc, a few drops of turpentine or even thin varnish can be used, but if you find that the paint is getting too tacky it will be necessary to work rapidly or thin it out. The common manila wood pulp paper dampened with a sponge or the Japanese tissue paper are the best to print on. The process from this stage on is very simple. The zinc plate containing the sketch is placed on a pad of paper, (an old magazine is very good), then the damp paper or tissue is placed directly on the painted sketch with a thin pad of paper on top of that. This sandwich, as it were, is carefully placed in a letterpress and the press screwed down tightly.

The process is then complete with the exception of taking it out of the press and touching it up here and there. Of course the sketch is reversed but the composition will be just as satisfactory, as a rule.

In place of a letterpress a common rubber roller clotheswringer can be used with equally good results.

The writer has had a great many good results and also a great many disappointments in making monotypes with high school pupils, but the work is fascinating, and the disappointments are not discouraging. Good luck.

Fletcher H. Carpenter.

4946 Washington Ave., Chicago.

My dear Mr. Bailey: Feb. 14, 1910.

I wish to enter a protest against the so-called three color method of teaching color.

At present there is a diversity of opinion as to the proper nomenclature, measurement and standards of color. It is almost universally admitted that color language has been inadequate, indefinite and to a large extent borrowed from other sciences. This is no doubt true.

It seems strange to me that the same cool common sense shown in teaching most subjects is utterly ignored in the teaching of color. As it is taught in many of our schools to-day it is vague, illusive and confusing, even to grown folks. What must it be to children?

The three color method of mixing water colors, and by that I mean, using the primaries, red, yellow, and blue and mixing to make other colors, is out of place in primary grades. The only excuse I have ever heard for its existence is that there is great educational value in the mixing of color and that it is better to have a simple palette than a more complex one.

In the first place where is there any educational value in children mixing to make a given color without a standard to compare their work with? Tell me where it comes in. I am open to conviction.

My experience in teaching has led me to the old principle of proceeding from the known to the unknown as the only safe, sound one to follow. I recently heard a supervisor say that the whole gamut of colors could be made from mixing the three colors. While this might be true if pigments were absolutely transparent and would diffuse and blend as do rays of light, it is not true in fact, especially so with water colors.

Suppose we start children in the first grade giving them three colors, without previous color training. What can they know of the fine art of color

harmony and the still finer art of color mixing? What definite color standards have they with which to compare their work? To be more explicit, suppose a child is required to make green from mixing yellow and blue. He is told to take some yellow and then some blue and then is left to his own devices, and the result is a color somewhere between a yellow and a blue. Scientific, isn't it? Accurate too, almost mathematical in its precision? What can we hope for by such unreasonable methods? Would you ask a pupil to work out a problem in arithmetic without first knowing the tables and rules, or expect one to make a good cake without following a tried receipt?

Certainly to ask children to mix colors without previous knowledge of true color, and excuse ourselves by saying that the educational value they acquire from the process is of great benefit to them, is a questionable method, and the value received not equal to the price paid by the pupil.

A much better plan, one that I have seen successfully worked out, is to first give the children definite, accurate standards of color by which they can square their efforts and see if they be true; to give them good true colors, at least the six solar spectrum hues with a gray, so that they may have good standards of color before them to become thoroly familiar with, before attempting the mixing of color.

In this way they have true perceptions by which to compare, measure and determine the hue, value or chroma of any color they may see, and be able to produce it. In all cases and at all times let our last court of appeal be the solar spectrum, and let us study nature, the colors in flowers, trees, sky, plants, vegetables, fruits, etc., an infinite variety, an inexhaustible source of supply.

Then let them mix the three primaries to get the secondaries, etc. In this way they get practice in mixing and have definite ends toward which to work, and accurate, definite standards by which to compare their results. The black allows them to reduce their colors to any shade, the white to any tint that they may wish to make.

It is impossible to make water color brilliant after it has once been reduced or deadened by mixing with another hue or with black or white. So then we need to have transparent colors to mix to their farthest limit, and they should be at their fullest intensity for use in all around work. I am speaking from experience and not hearsay, for I have tried both methods and heartily believe that a larger palette is preferable, especially for lower grade work, and certainly for older people.

Very truly yours,

Fred V. Cann.

THE ARTS LIBRARY

BOOK REVIEWS

Spring Growths. Eleven plates with notes on handling. By James Hall. The Davis Press, Worcester, Mass. Price 75 cents.

The difficulty of securing wild flowers in sufficient quantities to supply city schools, makes necessary an increasing dependence upon illustrations. When photographic, such illustrations lack color; when drawn, they are often too mechanical, or too vague and amorphous, to be of any value as records of plant life. Seldom, in either case, are they examples of good arrangement, nor do they show such handling as children should emulate. But this Packet contains plates made by a trained draftsman unusually sensitive to beauty, and fitted by experience as a teacher to employ a technique both effective and educational. They show the appropriate use of pencil and water color, singly and in combination, in a series of subjects typical of all the spring growths, and exemplifying degrees of interpretation appropriate to the different grades in school. From the first sheet to the last not a meaningless line nor an accidental wash appears to perplex the student. Each sheet is a model in arrangement, and beautiful enough to frame and hang upon the wall in a tastefully furnished room. Flower painters, china decorators, and handicraftsmen of every kind will find useful material in this Packet. The plates are unrivalled as aids in the teaching of Nature drawing,—better than most "specimens"; for they are properly posed, and will not wilt!

Manuscript and Inscription Letters. By Edward Johnston. John Hogg, 13 Paternoster Row, London. Price 3s. 6d. net.

This portfolio is intended as a working supplement to "Writing, Illuminating and Lettering," by the same author. It contains sixteen plates 10 x 12, five of them by A. E. R. Gill. The book referred to is the unquestioned standard in pen lettering. This portfolio easily takes rank with it. Such free and precise letters, so legible, and so handsome, have never before been available to students. They look alive—like a perfectly healthy person in repose—each the perfect embodiment of an idea. The plates show not only pen forms, but the standard Roman letters drawn with a brush for the sign painter, incised, and cut with raised forms, for the tablet maker. Full descriptive notes form a part of each plate, many of them in Mr. Johnston's own hand,—additional examples of fine lettering. The author's point of view is thus stated. "The point of view of the early calligrapher was most direct: in the first place his

manuscript was to be read, then, to be played with or glorified. The later men probably thought more consciously of "beautifying" (which is the beginning of danger). It is possible even now to go back to the child's—something like the early caligrapher's—point of view, and this is the only healthy one for any fine beginning: to this nothing can be added; all rules must give way to truth and freedom." This portfolio is complete in itself, and is by all counts the best thing yet in this field.

The French Impressionists. By Camille Mauclair. 212 pages. 4 x 6. Fifty illustration. E. P. Dutton & Co. Price $1.00.

This is the sixth volume of the Popular Library of Art, and while written with almost a partisan point of view, does set forth clearly the relation of that movement for freedom in painting, which had its day in France from 1860 to 1900, to the era which preceded it, and to the life of the time. The philosophy of these men, who flew in the face of the established order, who selected uninteresting and even repellent subjects purposely, who subordinated drawing to color, and exhibited color as a butcher exhibits his slain beasts, may be gathered from this little volume more easily and more happily, perhaps, than from any other source. Among the fifty pictures reproduced there are but few one would care to live with. They are curiosities, admirable in museums, valuable in the writing of the complete history of art, instructive to the technician, and full of warnings to young students of serious purpose. But, after all, these French Impressionists did make one invaluable contribution to the resources of the painter,—the technique of full, palpitating, color-charged light. To have done that is distinction enough for one generation of men.

Child Classics; a Series of Graded Readers for Schools. By Georgia Alexander. The Bobbs-Merrill Company, Indianapolis.

This series is mentioned here chiefly on account of the illustrations. Among the artists represented are Arthur I. Keller, Alice Barber Stephens, Harrison Fisher, Howard Chandler Christy, Fanny Cary, Mrs. Perkins, Arthur Rackham, Walter Crane, Maxfield Parrish, and Reginald Birch. When such people draw for children, children are sure to be supplied with pictures worth careful study, pictures which may be used by the teacher in laying the foundations of an appreciation of fine art. Such an appreciation may be the source of endless pleasure and inspiration.

RECENT PUBLICATIONS

THE EVOLUTION OF ITALIAN SCULPTURE. By Lord Balcarres. The book deals with the basis of plastic art in Italy, recording the fundamental stages of progress, and analyzing the ideals of the various schools of sculpture. E. P. Dutton & Co. $6 net.

NATURE AND ORNAMENT. By Lewis F. Day. A companion volume to Mr. Day's "Nature, the Raw Material of Ornament," bearing the sub-title, "Ornament, the Finished Product of Design." Charles Scribner's Sons. $3 net.

PRACTICAL HINTS FOR ART STUDENTS. By Charles A. Lasar. Mr. Lasar is one of the most successful art teachers of Paris. The book contains illustrative sketches and diagrams by the author. Duffield & Co. $1 net.

MANET AND THE FRENCH IMPRESSIONISTS. By Theodore Duret: translated by J. E. Crawford Flitch. A history of Manet and his followers in France: Pissarro, Claude Monet, Sisley, Renoir, Berthe, Morisot, Cézanne, and Guillaumin. Illustrated with etchings, wood engravings, etc. J. B. Lippincott Co. $3.75 net.

MASTERS IN ART. The latest output in the series bears the date of February 1909. It presents the work of Mariano Fortuny of the Spanish School.

VERGLEICHENDE FORMENLEHRE DES ORNAMENTES UND DER PFLANZE. By M. Meurer Kuhtmann. Dresden 1909. Superb drawing of plants and ornament.

FREE PUBLICATIONS OF THE DEPARTMENT OF AGRICULTURE, CLASSIFIED FOR THE USE OF TEACHERS. By Dick J. Crosby and F. W. Howe. A source of information the teacher of Nature Study cannot afford to neglect.

AN ART-CRAFT INDEX TO THE MARCH MAGAZINES

FROM THE POINT OF VIEW OF THE TEACHER OF MANUAL ARTS

PERTINENT ARTICLES

A Home Course in Drawing for Children, II, Nature Drawing, James Hall, Palette and Bench, p. 131.

Americanism in Sculpture as Represented in the Works of Bela Lyon Pratt (concluded), Frederick W. Coburn, Palette and Bench, p. 127.

An Austrian Painter in Water-colours: Ludwig Rosch, International Studio, p. 11.
A Reading Journey Through Egypt, VII, Esneh, El Kab, and Edfu, James Henry Breasted, Chautauquan, p. 40.
Block Printing, Helen T. Bird, Palette and Bench, p. 151.
City and Town Planning Suggesting Beauty Based on Business Conditions, Arnold W. Brunner, Craftsman, p. 657.
Color Arrangements of Flowers, Helena Rutherford Ely, Scribner's, p. 292.
Colour Work in School, J. Young, Practical Teacher, p. 528.
Drawing in Public Elementary Schools, Denver, Colorado, Charles M. Carter, Practical Teacher, p. 523.
Educational Value of the Camera, Craftsman, p. 647.
Etchings of Herman A. Webster, Martin Hardie, International Studio, p. VI.
Greek Doric Architecture, Lewis Frederick Pilcher, Chautauquan, p. 64.
Italian Leather Work, Florence Thurston Humphrey, Palette and Bench, p. 147.
Jugs and Pitchers, House Beautiful, p. XXII.
Luxembourg and American Painting, The, Frank Jewett Mather, Jr., Scribner's, p. 381.
Man and the Machine. The Pre-Raphaelites and Their Influence upon Life, II, C. R. Ashbee, House Beautiful, p. 101.
Metal Buckles (continued), William Whitney Lewis, Palette and Bench, p. 145.
Mural Decoration, II, Kenyon Cox, Palette and Bench, p. 135.
Needlecraft for Primary and Secondary Schools, Ann Macbeth and Margaret Swanson, Practical Teacher, p. 513.
Need of a National Academy, John W. Alexander, Craftsman, p. 607.
Old Door Knockers, International Studio, p. 10.
Old English Colour Prints, W. E. Sparkes, Practical Teacher, p. 509.
Paintings of Prof. Henry Tonks, C. H. Collins Baker, International Studio, p. 3.
Pottery Bowls with Incised Decoration, Craftsman, p. 706.
Practical Hints for Color Users, Eugene St. John, Printing Art, p. 28.
Some Paintings and Sketches by H. S. Hopwood, International Studio, p. 27.
Spanish and Moorish Furniture, Virginia Robie, House Beautiful, p. 89.
Vermeer of Delft, Edward Verrall Lucas, Outlook, p. 477.
What the Flemish and German Schools Stand For, Halsey C. Ives, Ladies' Home Journal, p. 10.
What the Schools are Doing to Your Boy and Girl. II, The World Makers, How Geography is Taught Nowadays, Eleanor Atkinson, World To-day, p. 313.

ILLUSTRATORS

Alexander, John W., Craftsman, frontispiece; Scribner's, p. 383.
Bail, Joseph, Century, p. 695.
Becher, Arthur, St. Nicholas, pp. 439, 440.
Benda, Wladyslaw T., Outlook, pp. 463-471.
Birch, Reginald, St. Nicholas, pp. 393, 414, 416.
Booth, Hanson, Circle, pp. 143-145.
Boutet de Monvel, Maurice, Century, pp. 677-684
Boyer, Jane Allen, St. Nicholas, p. 458.
Boz, St. Nicholas, p. 476.
Breakspear, Angie, Good Housekeeping, pp. 341-346.

Brehm, George, McClure's, pp. 493-497.
Brehm, Worth, McClure's, pp. 540-545.
Brennan, Alfred, Century, pp. 733-738.
Browne, Margaret Fitzhugh, St. Nicholas, cover.
Brush, George deForest, International Studio, p. XXII.
Burne-Jones, Sir Edward, House Beautiful, p. 104.
Castaigne, Andre, McClure's, frontispiece, p. 546.
Chamberlin, Emily H., St. Nicholas, p. 397.
Chambers, C. E., American Magazine, pp. 610-616
Cleland, T. M., American Magazine, p. 647.
Cole, Timothy, Century, p. 695.
Cox, Palmer, St. Nicholas, pp. 444-447.
Craig, Frank, Scribner's, p. 324.
Crouch, R. Weir, Century, p. 654, 655, 791.
Daugherty, James H., American Magazine, pp. 588-597.
Dawson, Alden, American Magazine, p. 618, St. Nicholas, pp. 453, 454.
Dean, Frank, International Studio, pp. 45-51.
Donaldson, Alice Willits, Keramic Studio, supplement, p. 227.
Duncan, Walter Jack, McClure's, p. 563.
Durer, Ladies' Home Journal, p. 11.
Edwards, Robert, Circle, pp. 152, 153.
Enright, Maginal Wright, St. Nicholas, frontispiece, pp. 387-392.
Fisher, Harrison, Ladies' Home Journal, cover.
Flagg, James Montgomery, American Magazine, p. 680; McClure's, pp. 503-513.
Forbell, Charles, Century, p. 796.
Gibson, W. A., International Studio, pp. 55, 57.
Gleason, J. D., Circle, p. 135.
Gould, J. J., Good Housekeeping, frontispiece.
Gruger, Frederic R., Century, pp. 667-673.
Guipon, Leon, Century, p. 660.
Hallock, Ruth M., Century, p. 732.
Hambidge, Jay, American Magazine, pp. 682-685; Century, p. 774; St. Nicholas, pp. 450, 451.
Harker, G. A., St. Nicholas, p. 393.
Harper, R. Ford, Good Housekeeping, cover.
Hassam, Childe, International Studio, p. XXI.
Haste, L. B., Century, p. 674.
Herter, Albert, Palette and Bench, supplement.
Holbein, Ladies' Home Journal, p. 10.
Homer, Winslow, International Studio, p. XXII.
Hopwood, H. S., International Studio, pp. 27-33.
Huard, Charles Scribner's, pp. 312-322.
Jackson, Ethel A., St. Nicholas, p. 400.
Jenks, Pauline, St. Nicholas, p. 476.
Kataoka, Genjiro, Century, frontispiece, pp. 644-651.
Keller, Arthur I., Century, p. 706; Ladies' Home Journal, p. 19.
Kemp, Oliver, Century, pp. 742, 747.
Kirby, Rollin, American Magazine, pp. 641-646.

Lester, C. F., St. Nicholas, pp. 428, 429.
Leyendecker, Frank X, McClure's, cover.
Linder, Henry, Century, pp. 760, 761.
Linson, Corwin Knapp, House Beautiful, pp. 85, 88.
Litle, Arthur, St. Nicholas, pp. 406, 408.
Manning, Fred S., Printing Art, frontispiece.
Masters, F. B., St. Nicholas, pp. 403, 405.
McEwen, W., St. Nicholas, p. 427.
Meylan, P. J., Ladies' Home Journal, p. 21.
Monahan, P. J., Ladies' Home Journal, p. 9.
Morris,——, House Beautiful, p. 101.
Oberhardt, William, Outlook, pp. 437, 439.
O'Neill, Rose Cecil, McClure's, pp. 518-524.
Parker, Cushman, Good Housekeeping, frontispiece, p. 305.
Partridge, William Ordway, Century, p. 656.
Perry, Raymond, Circle, p. 139.
Post, Charles Johnson, Century, pp. 782-790.
Pratt, Bela, Palette and Bench, pp. 127-131.
Redfield, Edward W., Scribner's, p. 381.
Relyea, C. M., Ladies' Home Journal, p. 7; St. Nicholas, pp. 433, 434.
Rodin, Auguste, International Studio, pp. 60, 61.
Roech, Ludwig, International Studio, pp. 11-17.
Rosenmeyer, B. J., Ladies' Home Journal, p. 13.
Ruben's, Ladies' Home Journal, p. 11.
Ruhrschopf, Robert, Circle, p. 146.
Schabelitz, R. F., American Magazine, pp. 705-712.
Stearns, Fred, House Beautiful, cover.
Tittle, Walter, Ladies' Home Journal, p. 15.
Tonks, Henry, International Studio, pp. 3-10.
Van Dyck, Ladies' Home Journal, p. 10; Printing Art, p. 32
Varian, George, St. Nicholas, pp. 398, 399, 424, 427.
Vermeer of Delft, Outlook, pp. 476-484.
Webster, Herman A., International Studio, pp. VI-X.
Whistler, James McNeill, Century, p. 759; International Studio, frontispiece, p. XXIV.
Widney, G. C., Circle, pp. 149-151.
Williams, George A., Printing Art, p. 24.
Wyeth, N. C., Scribner's, pp. 302-310.
Yohn, F. C., Scribner's, pp. 357-360.

COLOR PLATES

Adoration of Shepherds, Van Dyck, Printing Art, p. 32.
Approach to the Garden. Photographed in colors from nature by the Lumiere process, Scribner's, frontispiece.
Bandbox Room, The, Ruth M. Hallock, Century, p. 732.
"Banks of the Loir, The," W. A. Gibson, International Studio, p. 57.
"Bathing Ghats, Benares," Frank Dean, International Studio, p. 45.
Beaching the Boat, Etretat, James McNeill Whistler, International Studio, frontispiece.

Bit of Pink Border. Photographed in color from nature by the Lumiere process, Scribner's, p. 296.
Calla Lily, Alice Willits Donaldson, Keramic Studio, supplement.
Cover design, Benton, Circle.
Cover design, Margaret Fitzhugh Browne, St. Nicholas.
Cover design, Harrison Fisher, Ladies' Home Journal.
Cover design, R. Ford Harper, Good Housekeeping.
Cover design, Frank X. Leyendecker, McClure's.
Cover design, Fred Stearns, House Beautiful.
Fashion Illustration, Fred S. Manning, Printing Art, frontispiece.
"Garden Inclosed," Corwin Knapp Linson, House Beautiful, p. 88.
Garden Walk. Photographed in color from nature by the Lumiere process, Scribner's, p. 294.
Glory of the Garden, The. Photographed in colors from nature by the Lumiere process, Scribner's, p. 292.
Illustration from "Tristan and Isolde," George A. Wiolliams, Printing Art, p 24.
Japanese Print, St. Nicholas, p. 395
"Picardy Farmyard," H. S. Hopwood, International Studio, p. 31.
Poet and the Cherry-Tree, The, Genjiro Kataoka, Century, frontispiece.
Portion of Tapestry Frieze, Albert Herter, Palette and Bench, supplement.
Uyeno Park and Edogawa Canal, Tokio, in Cherry-blossom Time, Genjiro Kataoka, Century, p. 651.
"White Street, Gwalior," Frank Dean, International Studio, p. 51.

NOTABLE DESIGNS

Block Printing, Palette and Bench, pp. 150, 151.
Book cover, International Studio, p. 38.
Borders, Century, pp. 654, 655.
Bright Iron Screen, International Studio, p. 34.
Cabinets, House Beautiful, pp. 90, 102, 103.
Candlestick, Craftsman, p. 704.
Chairs, House Beautiful, pp. 89, 102; covered with Tapestry, Palette and Bench, pp. 122, 123.
Chapter Headings, American Magazine, p. 647; Century, pp. 674, 791.
Child's Pocket Embroidered in Silk, International Studio, p. 43.
China Bowls, International Studio, p. 37.
China Decoration, Keramic Studio, pp. 228-244.
Chiselled Steel Boxes, International Studio, p. 53.
Colored Plaster Overmantel, International Studio, p. 34.
Colored Stencils, International Studio, p. 50.
Doilies of Crochet and Lace Braid, Ladies' Home Journal, p. 49.
Door, House Beautiful, p. 103.
Eagle Lectern in Brass, International Studio, p. 40.
Electric Pendant in Steel and Brass, International Studio, p. 40.
Etched Glass Goblets, International Studio, pp. 42, 43.
Italian Carved Leather, Palette and Bench, pp. 148-150.
Jardiniere Stand, Craftsman, p. 702.
Jewelry, House Beautiful, p. 104.

Lettering, Printing Art, p. 44.
Library Table, Craftsman, pp. 699, 700.
Lunettes in Liverpool Town Hall, International Studio, pp. 54, 55.
Memorial Chancel-gates in Oak, International Studio, p. 56.
Metal Buckles, Palette and Bench, pp. 145, 147.
Metal Work, Circle, p. 181.
Needlework, Practical Teacher, pp. 514-517.
Nursery Stencils, Good Housekeeping, p. 384.
Old Door Knockers, International Studio, pp. 10, 12, 14.
Painted Screen, International Studio, p. 39.
Panels, Palette and Bench, p. 141.
Panels in Carved and Colored Wood, International Studio, p. 39.
Pansy Rug, Palette and Bench, p. 120.
Piano Bench, Craftsman, p. 701.
Pitchers, House Beautiful, pp. XXII, XXIV.
Porcelain Plaque, Palette and Bench, p. 141.
Porcelain Vases, Palette and Bench, pp. 142-144.
Portieres, Palette and Bench, p. 140.
Pottery Bowls with Incised Decoration, Craftsman, pp. 707, 708
Presentation Casket, International Studio, p. 36.
Rug, Palette and Bench, p 140.
Sconce, Craftsman, p. 703.
Sculpture, Open-air Pulpit, Grace Church, New York, International Studio, pp. III-V.
Seals, International Studio, p. 36.
Silver Bowl, International Studio, p. 36.
Silver Presentation Cup, International Studio, p. 53.
Stained and Leaded Glass Panels, International Studio, p. 70.
Tapestry, Palette and Bench, supplement, pp. 120-128.
Tapestry of the Epiphany, Exeter College, Morris, House Beautiful, p. 101.
Tiles, Palette and Bench, p. 143.
Title-pages, Printing Art, pp. 41, 43.
Vases, House Beautiful, p. 103; International Studio, p. 41.

THE SCHOOL ARTS GUILD

I WILL TRY TO MAKE THIS PIECE of WORK MY BEST

FEBRUARY CONTEST

AWARDS

First Prize, Book, a "School Arts Kit," and the Badge with gold decoration.

Joseph Agna, IX, Provincetown Mass.

Second Prize, a box of Munsell Colors, Wadsworth, Howland Co., and Badge with silver decoration.

*Leona Corbin, III, Easthampton, Mass.
Charles Donovan, VII, 1706 Seventh Ave., Sioux City, Iowa.
Earl Harris, VIII, Niagara Falls, N. Y.
Ernest Clay Harris, VII, 2104 23rd Ave., Meridian, Miss.
*Grace Strong, IX, Easthampton, Mass.

Third Prize, a copy of "Blackboard Drawing," published by The Davis Press, and Badge.

*Will Carnaghan, II, Avondale, R. I.
*Earl Cole, IV, Hillard-Grove School, Wilkes-Barre, Pa.
*Herbert Doty, High School, Candor, N. Y.
Hiram Field, V, Manistee, Mich.
Leo Gleim, IV, Lincoln School, Ottawa, Ill.
Roscoe Nelson, Fifth St. School, Niagara Falls, N. Y.
John Otto, III, Milton, Pa.
Paul Peikert, V, 1029 S. California St., Stockton, Cal.
Violet Whitehouse, III, 8 Pike St., Augusta, Me.
————, IV, Indian Orchard, Mass.

Fourth Prize, the Badge.

Annie Anderson, IV, Manistee, Mich.
*Carol Blackler, III, Park Ave. School, Westerly, R. I.
Berniece Chase, IV, 1217 Sixth Ave., Sioux City, Iowa.
Nellie Day, Hillsboro, Ohio.
Ernest Deransleau, IV, Aldene School, Roselle, N. J.
Lillian Drexel, VII, Hawley Grammar School, Northampton, Mass
Ethel Eldred, VII, Academy St. School, Oneonta, N. Y
Marion Fall, VII, 3 Oliver Place, Everett, Mass.
Earle Gabeler, VI, G. E. Hood School, Lawrence, Mass.
Emma Gerding, IV, Lincoln School, Ottawa, Ill.
Ernest Haskell, IV, 8 Noyes Place, Augusta, Me.
Delmar Hershay, Findlay, Ohio.

*A winner of honors in some previous contest.

Hazen Hill, IV, 22 Amherst St., Augusta, Me.
*Henry F. Hill, V, 101 Western Ave., Augusta, Me.
Hiram Holmes, VI, 33 W. Lafayette St., Stockton, Cal.
Dora King, I, Winchendon, Mass.
Mildred Lanphear, Avondale School, Westerly, R. I.
Mary Helen Leinbach, IV, Milton, Pa.
Lucile Magnusson, Manistee, Mich.
Eva May, II, Winchendon, Mass
John McNally, VII, Hawthorne School, Sioux City, Iowa.
John Monti, VIII, Elm St. School, Westerly, R. I.
Hazel Pierce, VII, 75 Garland St., Everett, Mass.
Leroy Rosencrans, IV, Shabbona School, Ottawa, Ill.
*Elsie Schirmer, VIII, G. R. Hood School, Lawrence, Mass.
Louis Silva, IX, Provincetown, Mass.
*Levi Talbot, IV, Pleasant St. School, Westerly, R. I.
Hilda Traylor, II, West Grammar School, Wakefield, Va.
*Frank R. Whelton, VIII, Wendell Phillips School, Boston, Mass.

Special Prize, the Badge.

DeBourg Tees, High School, Radnor, Pa.

Bird Outlines and Alphabet Packet.

Grades VI and VII, Pontiac School, Warwick, R. I.

Honorable Mention

Rose Ansite, Sioux City
Jeanette Arndt, Milton
Amy Babson, Rockport
Phoebe Becraft, Baltimore
Charlie Bentley, Stockton
Vernon Cicinato, Stockton
Revere Clapp, Westerly
Bessie Clark, Wakefield
Wendell Coates, Sioux City
John M. Cross, Augusta
Edward Dagmar, Manistee
Lillie Dolan, Sioux City
Clement Doyle, Lawrence
Isadore D——, Manistee
Joseph Enos, Provincetown
Marie Frechette, Easthampton
Donald Freeman, Augusta
Enid Groves, Stockton
*Constance Hall, Stockton
Loretta Hamilton, Baltimore
Lucile Hanson, Ottawa
Grace Inglis, Stockton
Signa Johnson, Manistee
Richard Jordan, Findlay
*Isabelle Kaiser, Stockton
William Keene, Baltimore
Laura Loudon, Oneonta
Alma Mattes, Ottawa
*Frank Meier, Lawrence
Hazel E. Merrill, Oneonta
Eva Miller, Milton
Mario Monti, Westerly
Elsie Morehouse, Lawrence
*Arnold Page, Augusta
Irma Peterson, Manistee
John Porte, Radnor
Elsie Potter, Oneonta
Charlie Poythress, Jr., Meridian

*A winner of honors in some previous contest.

Roy Quimby, Sioux City
Ralph Rhebb, Sioux City
Lillian Robertson, Wakefield
Russell Schmidt, Stockton
Rose Schumsky, Roselle
Gladys Seward, Ottawa
Joseph Shultz, Wilkes-Barre
Anna Smith, Northampton
Margaretha Spuergin, Ottawa
Henry Swanson, Sioux City
*Levi Talbot, Westerly
Abraham Tarrio, Augusta
Neva Thompson, Candor
Frank Twist, Milton
Fannie Watson, Radnor
Glen Watson, Sioux City
Francis White, Winchendon
Lewis White, Sioux City
Mildred Wilson, Sioux City
Ruth Wilson, Oneonta
Fred Winker, Niagara Falls
Ralph Witt, Winchendon
Elsie Yoder, Milton

Model and Object Drawing continues to be hard sledding. I am more thoroly persuaded year after year that the chief trouble lies in the inability of the teachers themselves to teach the fundamental principles correctly or to recognize at sight an incorrect drawing. If the drawings submitted in the contest are the best produced in the school, (which they are supposed to be), the worst must be bad indeed. It behooves every supervisor of drawing in the country to see that his teachers understand the three fundamental principles having to do with solidity, foreshortening, and convergence.

Almost every package of drawings this month contained a letter to the editor stating in one way or another the importance of the contests as a means of stimulating interest in drawing. Let other towns test the truth of this for themselves.

Please remember the regulations:

Pupils whose names have appeared in The School Arts Book as having received an award, must place on the face of every sheet submitted thereafter a G, for (Guild) with characters enclosed to indicate the highest award received, and the year it was received, as follows:

These mean, taken in order from left to right, Received First Prize in 1905; Second Prize in 1906; Third Prize in 1907; Fourth Prize in 1906; Mention in 1907. For example, if John Jones receives an Honorable Mention, there-

*A winner of honors in some previous contest.

after he puts M and the year, in a G on the face of his next drawing submitted. If on that drawing he gets a Fourth Prize, upon the next drawing he sends in he must put a 4 and the date, and so on. If he should receive a Mention after having won a Second Prize, he will write 2 and the date on his later drawings, for that is the highest award he has received.

☞Those who have received a prize may be awarded an honorable mention if their latest work is as good as that upon which the award is made, but no other prize unless the latest work is better than that previously submitted.

☞The jury is always glad to find special work included, such as language papers upon subjects appropriate to the month, home work by children of talent, examples of handicraft, etc.

☞Remember to have full name and mailing address written on the back of each sheet. Send drawings flat.

☞If stamps do not accompany the drawings you send, do not expect to obtain the drawings by writing for them a month later. Drawings not accompanied by return postage are destroyed immediately after the awards are made.

☞A blue cross on a returned drawing means "It might be worse!" A blue star, fair; a red star, good; and two red stars,—well, sheets with two or three are usually the sheets that win prizes and become the property of the Davis Press.

IRIS

by

JAMES
HALL

The School Arts Book

AN ILLUSTRATED MONTHLY MAGAZINE for THOSE INTERESTED IN DRAWING *and the* ALLIED ARTS

HENRY TURNER BAILEY
EDITOR

September to June inclusive $1.50 a year, in advance

VOL. IX MAY, 1910 NO. 9

Entered at the Post Office at Worcester, Mass., as second class matter, August 17, 1903

CONTENTS

An Aid to Conventional Design	Arthur W. Scribner
Wigwams	Ida H. Clark
Doily Designs	Grace W. Ripley
Pottery Craft, III—Design	Cheshire L. Boone
Public School Drawing and Its Relation to Industry	William H. Elson, Frank P. Bachman
Pose Drawing	Floy Campbell
Annotated Outlines, June, with Illustrations,	Reference Material
The Workshop—Woodworking—Sandals	Frank G. Sanford
Weaving—Doll's Tam O'Shanter Cap	Katharine F. Steiger
Needlework—Costume of an Irish Bard	Blanche E. Hyde
Metalry—Paper Weight	Augustus F. Rose
Editorial: Il Palio; The Totem; Good Designs; Notes	Editor
Helpful Correspondence The Arts Library	School Arts Guild
Reliable Advertisements Trade News	

Published by THE DAVIS PRESS, Worcester, Mass.

COPYRIGHT, 1910, BY THE DAVIS PRESS. ALL RIGHTS RESERVED.

BULLETIN

The June Number will be unusually rich in illustration, and in articles of "cultural value." Manual Arts in Open Air Schools in Europe, by Ida Hood Clark; The Art Heritage of Industry, by Dr. James P. Haney; The Use of Flowers in Education, by John Cotton Dana; Damascus Inlaying, by Lanice Paton, Beirut, Syria (postponed from the May number); Outdoor Sketching, by Elizabeth Keyworth, Baltimore; A Lesson in Design, Charlotte Reed, Marshalltown, Ia.;— these are some of the good things. It will contain also an announcement of the new features of The School Arts Book for 1910-1911.

The School Arts Book

Vol. IX MAY, 1910 No. 9

AN AID TO CONVENTIONAL DESIGN

IN teaching design to young classes, poor results are generally obtained from lack of sufficient practice in measuring, spacing, enlarging and reducing, in drawing the same form in different positions and repeating it several times. Too much is expected. Most lessons on design are not simple enough.

It is just and proper in the upper grades that the pupil be required to consider the object to be decorated, its material, its use, appropriate design, and proper space for decoration. In the lower grades, however, this method cannot be successfully adopted. After many years of experience in all the grades it became apparent to me that something more helpful was needed in the lower grades than text books and blackboard illustrations, valuable as they are. In making designs, whether elementary or applied, primary work has been largely imitative and along the line of least resistance.

Young children seem unable to grasp the fact that they have the liberty of shifting the details of plant form either separately or collectively, to use them in conjunction with other forms, or to change the proportions, shapes or sizes of various parts. To modify and conventionalize they must have something tangible, something they can handle themselves and manipulate according to their own fancy plus the guiding intelligence of their teacher. Right here is a vital point; if the teacher is unacquainted with the work of previous years and with that which follows her own grade, is indifferent, and allows the children free scope in the selection and grouping of various forms related or not, then the work becomes tiresome and valueless. On the other hand, the progressive teacher, well informed as to the aim

of such work, will be of real assistance to the children in guiding them to select such forms as will show balance, rhythm, and harmony. It was with a desire to help these young children to break away from their narrow, formal ways that led me to experiment on new lines. The selection of certain angular and rhythmic units is the result of this experience.

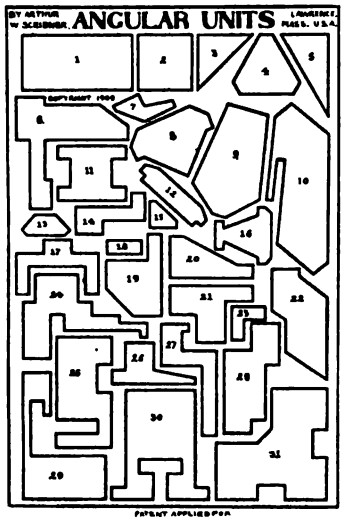


Plate I.

It seemed best to classify these units in three groups: angular units, Plate I, consisting of straight line units, as best fitting fourth grade pupils, they having acquired some skill in the use of scissors thru cardboard construction and sewing. Rhythmic units, Plate II, Sets A and B. Set A, straight and curved line units, for fifth grade, and Set B, all curves, for sixth grade or above. It should not be forgotten that the use of these units is merely to aid pupils to make conventional design, and not to take away from them the opportunity to create original design.

Two or more lessons should be given in cutting, planning and tracing these units. Immediately following should be lessons on tracing and modifying one or more forms previous to planning any definite arrangement. Plate III shows several arrangements made from these units, each ready for repetition in borders, or surface patterns. In repeating certain groups, the necessity of certain modifications will become apparent. Many pupils will be able to cut original forms of beautiful proportions and

will see in simple plant forms motives that will resemble some of these units. Once their receptive minds are opened to correct seeing and imaging, the barrier to original design will be cleared away forever. For pupils having apparently limited perseverance

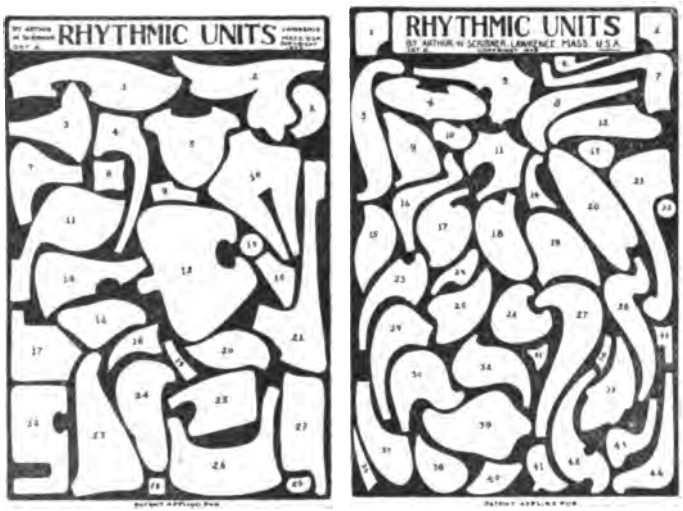


Plate II.

and ingenuity, these units will be found especially helpful, as an incentive to create original groupings. They have proved of great assistance to such pupils thru all the grades including the high school.

When a child appears unable to combine these units, have him begin by tracing one form in a row from left to right, repeating it at regular intervals; then alternating its position by reversing left and right; then upright and upside down, and in combination with one other unit. Finally this pupil will be led by easy stages to grasp the idea of grouping two or more forms in a pleasing

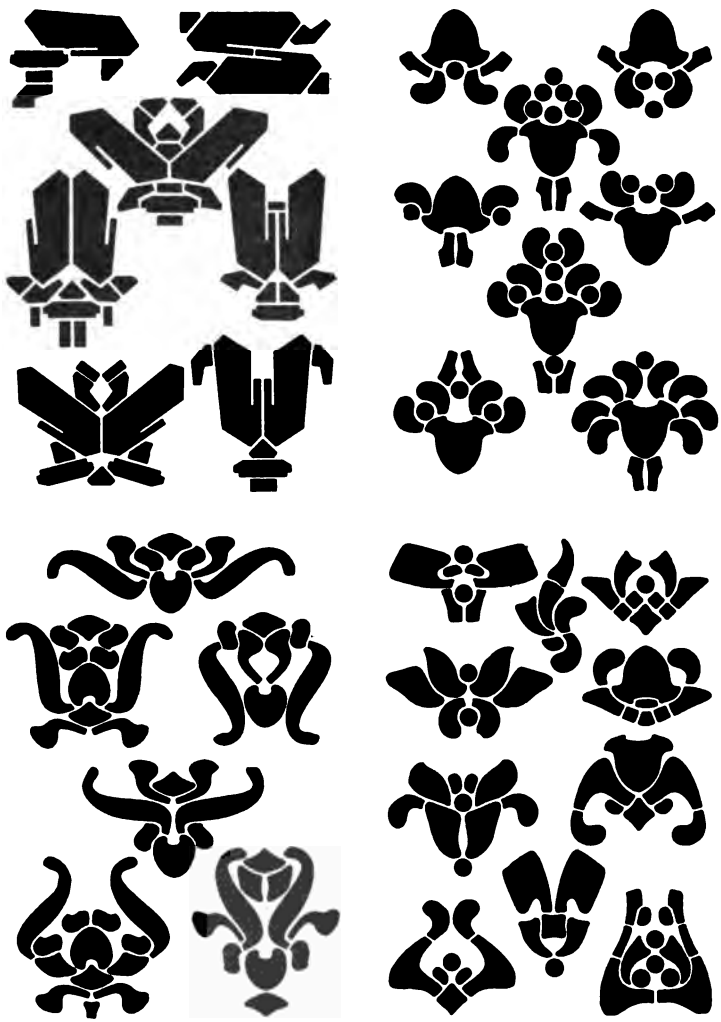


Plate III. Bi-lateral forms made with straight and curved line units by fourth and fifth grade children.

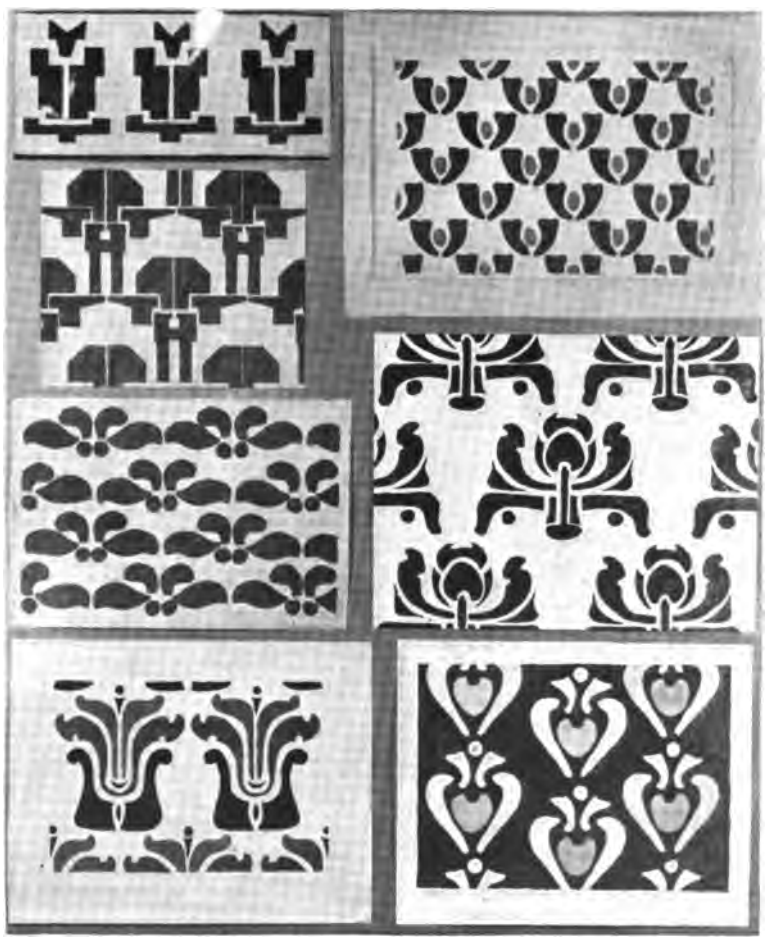


Plate IV. Designs made by the use of rhythmic units by fourth, fifth, and sixth grade children.

and orderly arrangement. Later, pupils may trace one or more units and by cutting or drawing make slight modifications before arranging them into a group.

For preliminary work in dividing and sub-dividing definite areas, and in making designs for block printing, stencilling, brass and copper work and for many problems in the arts and crafts these units, with their modifications, will prove their value to the unbiased mind.

Plate IV shows typical results secured by fourth, fifth and sixth grade pupils in the Lawrence schools.

ARTHUR W. SCRIBNER
Supervisor of Drawing
Lawrence, Mass.

WIGWAMS

MUCH of the creative work involving true expression in the kindergarten and the first grade work consists in the illustration of stories, games and songs; also the painting of things seen on trips to parks, such as people, animals, birds, trees and flowers and making simple designs may be included in the art work.

In the kindergarten and first grades the children's technical work should consist in learning how to moisten and mix water colors and the use of the brush.

Pictures in color, illustrating stories from Indian and Eskimo life may then follow, as these young children are always intensely interested in subjects where bright colors may be used. For this reason stories of Indian life always appeal to them. They may be told stories of Indians and Eskimos, showing how other people built their houses and places of shelter.

They could visit the public museums to see the homes of Indians and Eskimos and make a collection of pictures of Indians, and their homes, illustrating food, dress, occupation, games and surroundings of these people. The costumes of the Indians, sometimes barbaric in their splendor, appeal strongly to young children's imagination, and they should have an opportunity to wear simple Indian costumes and have the experience of living for a time the life of the Indians in acting out the stories of Indian life.

For primary and kindergarten children the preparation and making of these costumes must be very simple, as young children tire easily of anything that requires much detail or fine work.

The illustration shows how the children in one of our kindergartens made an illustration of Indian life. The school janitor made a circular base for the wigwam of pine wood, about seven and one-half feet in diameter. He also bored holes about four inches apart and then the teacher and the children gathered poplar boughs of one year's growth, stripped them of their leaves

Wigwam and accessories, made in a kindergarten room, Milwaukee, Wis.

and placed them in these holes. The ends of the boughs were gathered at the top and tied with heavy cord. Coffee-sacking was then placed around this framework and an opening left for the door. The result was a real big wigwam that would hold several children. When these wigwams were made in the first grades, we told the children that the Ojibway Indians made both the conical and hemispherical wigwams. Some of the children preferred the latter and in this case the poplar boughs on one side were bent over and placed in the opposite holes and the boughs were fastened together in the center by passing one by the other as in basket weaving. In pleasant weather these wigwams are carried out of doors and used for illustrating the Indian games in the children's playtime.

The picture shows the Indian squaw at the door of the wigwam, with a blanket on and her little papoose, an Indian baby, dressed by the children, on her back. Several Indians are around the door. The children made the bows and arrows; made the beads of clay and colored them with water colors; made the Indian hats, putting in the feathers they had brought from home. When bright red and green feathers were not obtainable, the children suggested coloring them with water colors. The mothers of the children became interested in this study of Indian life and the little squaw's mother made the little child's dress of bright yellow cloth and trimmed it with red bows. The boys brought pieces of old blankets and shawls which their mothers or sisters had helped to decorate and made to look like real Indian blankets.

The cheerful spirit that the children displayed in lending their costumes to other children, when in turn they were to "play Indian" was one of the beautiful features of the play.

The children made clay kettles and utensils in which the Indians cooked their food. The little squaws made baskets

of grasses and colored raffia; the boys made canoes of birch bark. All the children delighted in imitating the Indians in every possible way.

All the modes of expression in the kindergarten and first grades must be chosen and varied according to the needs of children and must involve the most fundamental activities. Construction, clay-modeling, painting, drawing, freehand cutting, designing, building with blocks and gardening are necessary occupations in this expression.

IDA HOOD CLARK

Supervisor Elementary Manual Arts
Milwaukee, Wis.

DOILY DESIGNS

OUR second problem in the Boston Trade School for Girls Design classes this year was the making of doily designs to be worked in French embroidery.

Each pupil was provided with plenty of newspaper and allowed to experiment in getting an interesting edge design for her doily. First the pupils cut circles five or six inches in diameter by means of folding squares of paper and drawing the arc of the circle which they were to cut out. It required quite a little reasoning to discover a way to make a perfect circle without a compass, but soon all the pupils were in possession of five or six perfect ones. The circles were then folded so that the folding lines divided the circles into sixths or eighths, and a design for the buttonhole edge was drawn on the edge of one section of each circle, Fig. 1, A, and then cut out, Fig. 1, B.

The best edge designs were reproduced in Japanese tissue paper and thread lines forming the buttonholing were indicated. The design was proven to be a practical one if it was possible to draw the thread lines evenly in the design, so that they did not spread at the top or bottom.

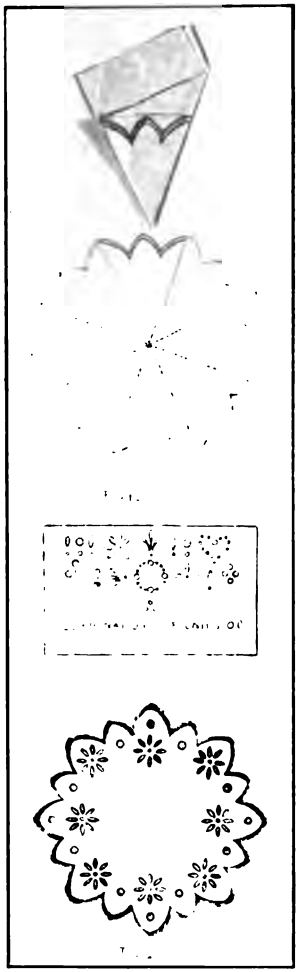
Combinations of long and round dots representing embroidered spots were arranged by each pupil and the transparent tissue doily, moved over the grouped spots, until the ones which looked best with the embroidered edge were chosen, and drawn on the tissue doily, Fig. 2.

Figure 3 was not made by a lazy girl. In Figure 4 we see an impractical buttonhole edge and a crowded design.

Figures 5, 7, 9, have a little too much work in them for ordinary uses, but are practical designs.

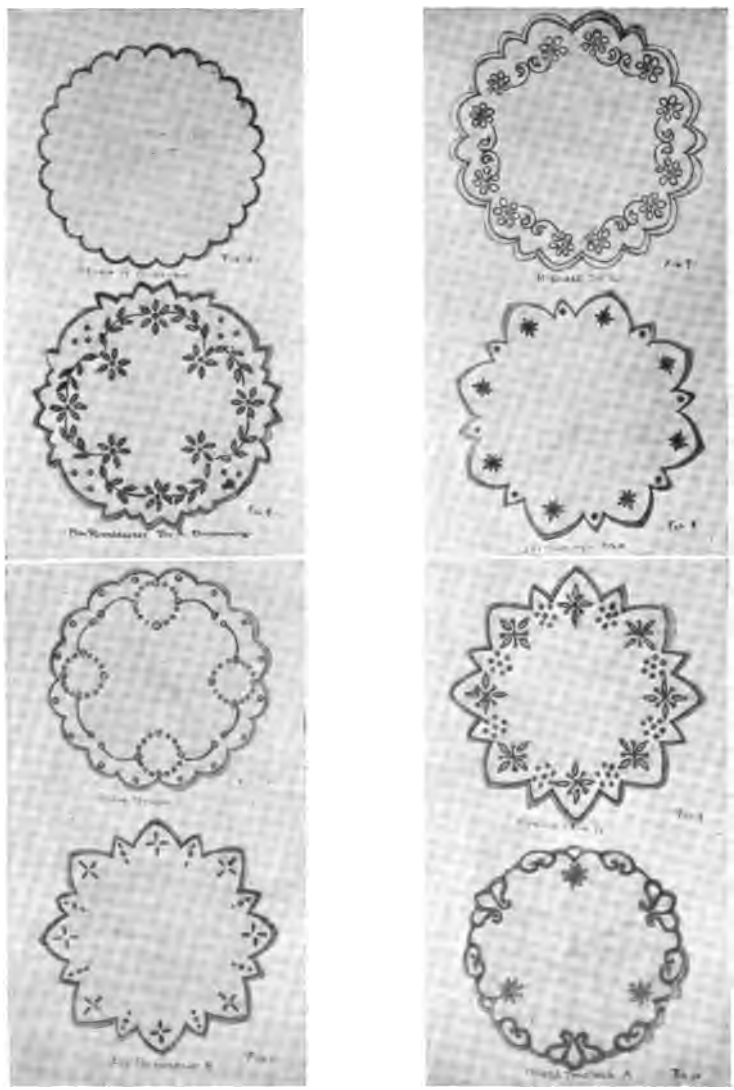
Figure 10 shows the buttonhole edge carried into the design. The effect is good when worked out.

Figure 8 looks well worked in seed stitch. Figures 6 and 11 are very good, and easy to embroider.



Stages in the evolution of a doily design.

The majority of trades women design with their scissors whenever possible, and do not use a pencil, compass or ruler if they can avoid it. I have watched many dressmakers work out whole designs with muslin, scissors, needle, and thread. They can think better in the medium they are used to. If a dressmaker wants a pattern of a band, she cuts it from muslin or paper, and if she wants a design on the band she often adopts many pitiful devices to avoid drawing it, such as stamping it with her thimble or pressing on a five-cent piece to make a series of circles, or sewing a line design. Training in designing of a very practical nature would enlarge the scope of a trade worker very much, but it seems necessary that the very simplest and most natural method of producing the results should be taught. Scissors designing is very useful and practical and in consideration of the fact that the compass is usually broken or far away, it seems useful to teach geometrical folding and cutting to embryo dressmakers and milliners. Dressmakers cut circles, ellipses, and all sorts of geometrical shapes with great skill and speed. I remember a

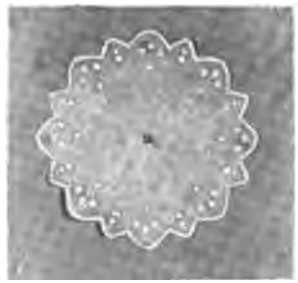


Doily designs by pupils of the Boston Trade School for Girls.

machine operator speaking disgustedly of an employee as not being "smart enough to cut the pattern of a circle."

The doilies which the Trade School pupils made were stamped by them for practice on scraps of cotton cloth by means of carbon paper. The best ones were worked out on linen.

GRACE W. RIPLEY
Boston Trade School for Girls
Boston, Massachusetts



A design drawn on tissue paper with Chinese white, and mounted on a colored ground.

POTTERY CRAFT IN SCHOOL

III

DESIGN

EVERY material presents to the designer a few shortcomings, or rather limitations, of technique which restrict and modify his plans. Such limitations are very plain in clay work, which, altho it offers the best of opportunities within a given range, has to be treated in one of but two or three ways to give a harmonious result.* The only kind of clay decoration possible to children is the kind which grows out of the manipulation of the clay itself. It is the natural, obvious kind such as children would instinctively use, if left to themselves—*incised decoration.* Embellishment of this kind, cut or scratched into the clay while still moist, is characteristic of the material, because it seems to be an integral part of the whole thing and keeps its place as a detail. It is more usable than modeled pattern because modeling in relief demands considerable skill, more than children possess. Also it is well to place in the hands of pupils a kind of design which can be applied with few tools and with the least possible amount of process between the completed pattern and its transference to the object. This does not mean that incised pattern is the only kind which can be used, but it is the backbone, the basis of nine-tenths of all decoration used in elementary and high school ceramic work. It is possible to use some color and now and then a suggestion of modeling, but incised line should be the characteristic element at all times.

Form is even more important than decoration and, tho pupils may not be able to place on paper their conception of a complex object like an ink-well, the possibilities of design exist just the same. The ink-well, flowerpot, candlestick, pitcher,

*Of course the ceramic artist with full knowledge of his craft has almost entire freedom, but children with a minimum of knowledge have to work as did early peoples, directly with the material, using design which can be applied with few tools.

teapot, etc., are things which are within the ability of children, tho the design must be worked out in the clay itself, which is plastic and responsive to experiment. Each of these problems places upon the pupil-designer certain restrictions.

(a) The ink-well must be very stable. It should have a small opening to reduce the evaporation of ink.

(b) The flowerpot must also be stable, but a wide mouth is necessary. The wide mouth demands a strengthened rim for structural reasons.

(c) The candlestick (one to carry about) should have a satisfactory base for stability and a handle by which the candle can be carried upright. The attachment of this handle to the rest of the construction is quite a problem: it must be strong and without the appearance of being stuck on regardless of structure or form.

(d) The pitcher and teapot present still other elements—the spout and lip.

These phases of design cannot easily be worked out on paper by children; they must be handled along with the modeling of the pieces, adding to or changing the design as the work progresses. This practice is on the whole more valuable than a study of surface decoration alone.

SUGGESTED PROBLEMS

The following list is offered without reference to the age of pupils. The exercises are quite as satisfactory for the high school as the intermediate grades, because the high school student can simply emphasize the design element and employ some color, whereas the craft is taught in the elementary school chiefly as handwork where design is not made too prominent. The list includes these:

1. Various kinds of tiles as the tea tile, paper weight, tiles for window boxes, floor and bathrooms, according to class.

Fourth and fifth grade children begin with tiles, to learn how to handle clay and how to apply their patterns; at first these are dictated by the teacher.

2. Trays, shallow bowls, candlestick and ink-well. The tile is the foundation for each of these.

3. Bowls built of coils (Indian or primitive process). Symmetry and precise execution are desired here. Many subsequent

Tea tiles, paper weights, a bowl, an ink-well, and a candlestick, by high school pupils.

problems depend upon this building with coils and the process must be well learned.

After the first problem, one or two other bowls should be made for specified purposes, as for fruit, tea grounds, or candy. Mature pupils can, of course, plan appropriate decoration for these and give some attention to details such as the foot and rim.

4. Cylindrical forms, as vases for flowers, mugs, jars with covers, pitchers, flowerpots, etc. This group includes a good deal of material.

After the pupil has learned to build an acceptable cylinder, he may then experiment with handles (for a mug), with covers (for a tea, cracker, or tobacco jar), and, of course, try in the end

to harmonize all these details and incorporate them in a result which is adequate and not clumsy.

5. Things which are rectangular, as flowerpots or boxes. The construction of rectangular ware* is a little difficult but the design problem is the same as for tiles. Each piece offers four surfaces for enrichment.

Original designs for tiles by intermediate grade children.

DEVELOPMENT OF SURFACE PATTERN

It will be assumed in the present discussion that all surface patterns for clay will be composed of geometric elements. Children cannot use any other type of motif so easily and the rules of composition which obtain with geometric pattern hold for any other.

Rectangular areas, as tiles, flower boxes, etc.

There are four distinct kinds of decorative treatment for any given area.

*The School Arts Book, Dec. 1909.

a. The border.
b. The central stamp.
c. Pattern covering the entire surface.
d. A symmetric pattern and compositions which balance on one axis only.

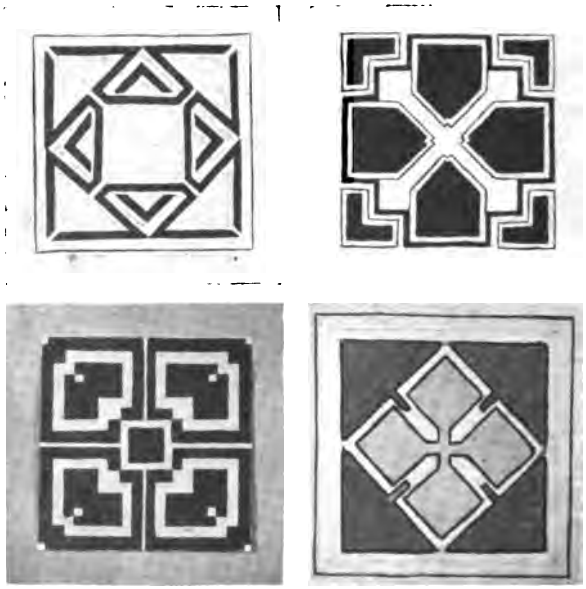
Designs for tiles, window boxes, bowls, and ink-wells, by grammar grade pupils.

The last, d, is beyond the elementary pupil and may be discarded for the present. The border* presents few difficulties and the remaining two, b and c, are very much alike: c for a square tile will serve as a type. It will be supposed that the class

*See The School Arts Book, April 1906, and Year Book of the Council of Supervisors, 1905, for other discussions by the writer, of pottery decoration. These papers contain many illustrations.

has worked in clay to some extent and has already applied pattern dictated by the teacher.

Suppose the problem to be a design for a 6-inch square tile. At least 1-2-inch margin should be left between the pattern and



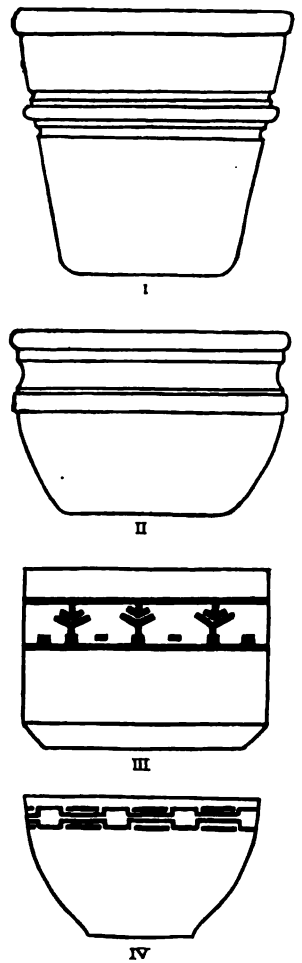
Designs for tiles, in ink and water color, by grammar grade pupils.

the edge of the tile. The pattern should be symmetrical and will therefore be constructed on the axes of the square, diameters or diagonals, or both. A design of this kind is an arrangement pure and simple. With children one can begin with a definite central area, as a small square or circle, and make the other subdivisions of the design fit around this central spot. Such a method appeals to children because of its definiteness. The main require-

ment is that the spaces show some variety in size and shape. The design may be planned also about areas situated at the middle of each side, which is merely an elaboration of the first suggestion.

This type of pattern children can handle intelligently. It is sometimes invented by cutting from folded squares of paper the same size as the clay tile.* The objection to this practice is that the resulting design is largely a matter of chance. It is worth using as an occasional stimulant or to economize time.

When the pattern has been completed, attention must be given to width of line and other details likely to be modified in the application of the design to clay. The lines must be rather broad and far apart, so that they will not be obliterated by glaze and so they can be incised in the clay with precision and neatness. If some of the areas are to be filled with color, the pattern should have somewhat the character of a stencil pattern, and it may be necessary to rearrange the structure so that areas which are to differ in color can be kept separate.



Designs for a flower pot and bowls of various kinds, by grammar grade pupils.

*See various suggestions in The School Arts Book.

It is the teacher's business to see that the important lines of the composition are not in contrast to the rectangular boundary of the tile: the decoration should give a comfortable feeling of harmony with the space it is to occupy.

APPLICATION OF THE PATTERN

The decoration is lightly drawn on the clay with some sharp-pointed tool like a pencil, to indicate the positions of lines. Then with a chisel-sharpened stick* the lines are scraped out to a depth of 1-8 of an inch at least. Practically all the drawing can be done freehand. There is no real objection to the use of rulers, compasses, etc., but the patterns are not complex and it has been the writer's experience that freehand execution is likely to be more in harmony with the hand-made tile: it is certainly good training. All the corners should be cut sharp. The slight burr on the edges of each line, left by the pressure of the tool must be left until the tile is dry or nearly so, when it can be scraped off.

DEVELOPMENT OF FORMS

FLOWERPOT

Pottery forms are designed in a rectangle whose dimensions are equivalent to the greatest dimensions of the proposed vessel. The design should be a true mechanical drawing (elevation or side view). Within a given rectangle, the pupil is required to show the slant of the sides, width of bottom, position of bands or width of rim, etc. The variety of form which can be secured is considerable and the guidance of the rectangle keeps the form to a possible solution. In planning the flowerpot, for instance, if the teacher dictates its extreme dimensions and the fact that the opening at the top must be as large as possible, the child's

*These sticks can be made by any boy with a sharp knife. Wood works better than metal and the tool can be modified as the design demands.

design *cannot* be wrong in a utilitarian sense, tho he has ample room for invention in planning the curve of sides, placing of bands, and size and form of rim and foot. But the real purpose of the design is not an artistic one, it is to give the pupil a plan of his own from which he can learn to work and become accustomed to execution which must conform to a design devised beforehand.

In conclusion one should keep this point in mind. All this designing is for *pottery,* and pottery means *burned* clay,

Designs for flower pots, by high school pupils.

not the wet, moist substance of which the vessels are originally made. No decoration should be made which will not stand fire: so color (paint of all kinds) which cannot be burned is out of the question. If the clay work cannot be burned, then pottery should not be made at all; it would be better to stick to modeling from casts, animals, ornament, etc.

The following references will be useful:

Studies in Line by Muzzey, School Arts Book, December 1907, May 1908, and April 1909.

Studies in Space Filling, by Muzzey, School Arts Book, February 1910. These papers tell much about the principles of design most applicable to clay, tho that material is not mentioned. The illustrations are excellent.

Composition, by Dow.

The Theory and Practice of Teaching Art, by Dow. Both of these publications contain illustrative suggestions in line which are useful.

Classroom Practice in Design, by Haney. This pamphlet deals primarily with pattern for other materials than clay but the practice and methods advocated are fundamental and should be familiar.

CHESHIRE LOWTON BOONE

Montclair State Normal School
Montclair, N. J.

PUBLIC SCHOOL DRAWING AND ITS RELATION TO INDUSTRY

DRAWING as it now finds place in our public schools has of late been subject to wide-spread criticism. It has usurped, it is held, the place of the more important studies, reading, writing and arithmetic, while in itself it is of no practical value. This criticism rests upon a misconception of the worth of drawing to personal life and upon a failure to appreciate its relations to home making, and especially to productive industry.

ART AS A FACTOR IN LIFE

There is a tendency among Americans to make light of the artistic. Reflection leads one to conclude that an appreciation of beauty is deep-seated and plays a large part in the life of all. We demand not only that which is of utility, but we demand at the same time a certain artistic satisfaction. So far as utility is concerned, a dining-room table might be made of rough boards for less than a dollar. Still there are few people content with such an article. Tho there is no necessity for beautiful table linen, few persons are willing to deprive themselves of this luxury. The simplest type of tin plates might serve every practical purpose, but so sensitive are we to the artistic that our tables are adorned with expensive china. There is no sanitary reason for wall paper or wall decorations, yet we decorate the rooms of our homes in ways which to us are pleasing. The same thought might be carried into every corner of our personal and domestic life and it is in view of this we assert that no sense is more deep-seated than that of the beautiful, and that at least a half of life's labor is spent in gratifying this appreciation of the artistic.

ART AS A FACTOR IN INDUSTRY

Industry has as its object the satisfaction of the needs of men. Being thus conditioned, it is not difficult to see that industry is profoundly influenced by the appreciation of beauty.

In fact, the sense of the beautiful has come to be one of the determining elements in production. The successful manufacturer of ornamental iron work is not the one who makes mere metal coverings, but the one who makes metal coverings beautiful both in design and effect. The furniture manufacturer who succeeds is not the one who makes articles of utility, but the one who embodies in his furniture the highest degree of art. So it is in a large proportion of industry. Success no longer depends upon mere production, but upon ability to produce that which is both useful and satisfying.

Art as an element of industry is, therefore, not a surface element, but one that strikes deep in modern business, and it is to-day upon the art element more than any other after utility, that the success or failure of a given enterprise rests. Art is therefore a vital element in production, one that must be given consideration.

REASONS FOR DRAWING IN THE SCHOOL

England, as is well known, is essentially an industrial nation. Her welfare depends upon the supremacy of her manufactured products. About 1851, she was astonished at the falling off of her foreign trade and found she was being driven from the markets of the world by France. A royal commission was appointed to investigate ways and means of improvement. After a continued consideration of the question, this committee reported that the supremacy of France in the commercial world was due to the art exhibited in her productions and that, unless England expected to lose her commercial supremacy, drawing must be used as a means of giving her workmen the skill and taste needed in modern production. It was, therefore, that her productive industries might be improved on the side of the beautiful, that England introduced drawing into her public schools.

Massachusetts found in 1870 that she was failing in competition with French and English goods. An examination for the cause by leading manufacturers led to the conclusion that their failure to compete lay in the superiority of taste in French and English products. They concluded, further, that the superiority of French and English goods rested upon the artistic skill of French and English workmen, which in turn was due to the place given to drawing in French and English schools. Acting on these convictions, a petition having the following import was presented to the General Court:

"At the present time no wide provision is made for instruction in drawing in the public schools. Our manufacturers, therefore, compete under disadvantages with the manufacturers of Europe; for in all the manufacturing countries of Europe free provision is made for instructing workmen of all classes in drawing.

"For such reasons we ask that the Board of Education may be directed to report some definite plan for introducing schools for drawing, or instruction in drawing, free to all men, women and children, in all towns of the Commonwealth of more than five thousand inhabitants."

The same reasons, namely, the desire to provide workmen with power to design, with artistic taste, and with skill in artistic execution, led to the introduction of drawing into our schools.

INDUSTRY AND THE UNITED STATES

We are rapidly becoming an industrial nation. This is evidenced by the existence of 533,769 manufacturing plants which represent a vested capital of almost fourteen billions of dollars, and give employment to over six millions of wage earners. That we are to become more and more an industrial people is revealed in the fact that the capital invested in industrial plants

increased between 1900 and 1905, 41.3 per cent., while there was an increase of 16 per cent. in the number of bread winners employed. Our industrial future does not depend, however, so much upon our natural resources and advantages as upon the power of our workmen to design and to artistically execute; for a large proportion of our manufactures rest upon such capacity, and at least one-fourth of our industries involve a high degree of artistic sense and skill.

It is not difficult to appreciate the place that design and taste play: in brassware, represented in a single city like Cleveland by a capital of half a million, and eight hundred employees; in men's clothing, represented by a capital of two millions, and 1600 employees; in women's clothing, represented by a capital of two millions, and 3,000 employees; in electrical apparatus represented by a capital of four millions, and 2,500 employees; in furniture, represented by a capital of two and one-half millions, and 600 employees; in glass and lamp fixtures, represented by a capital of one-quarter of a million, and 300 employees; in hardware, represented by a capital of three-quarters of a million, and 2,500 employees; in tools, represented by a capital of three-quarters of a million, and 500 employees; in home furnishings, represented by a capital of three-quarters of a million, and 500 employees; in looking glass and picture frames, represented by a capital of one hundred thousand, and 100 employees; in millinery and lace, models and patterns, each represented by a capital of one hundred thousand, and 150 employees; in printing and publishing books, represented by a capital of a million and a half, and 1200 employees; in stamped ware, represented by a capital of three-quarters of a million, and 500 employees. It is not difficult to appreciate the place art takes in such industries as pottery, ornamental glass, ornamental stone work, dressmaking, etc., or in such occupations as architectural carving, archi-

tecture, landscape gardening, home decoration, and scores of others that might be mentioned.

DRAWING AND AMERICAN INDUSTRY

With art playing such a large part in all production and especially in at least one-fourth of our industries, the question arises, a question in which every citizen is interested: From whence are to come the workmen sufficiently developed in design, in taste, and in artistic skill, to carry forward the industrial interests of our country in the future?

The answer to this question rests partially with the highest art institutions and with technical high schools, but for the vast body of our workmen the answer to this question lies with the public school, and it is that they may do their part in preparing the workmen of the future to meet the needs and demands of productive industry that drawing finds a place in them.

Drawing as taught in the public schools no longer consists in the mere making of lines, but has as its object the development of power in design and skill in artistic execution with reference to productive industry. It seeks to set the child the same relative problems in design and execution as are faced by the maker of brassware, hardware, gas and electrical fixtures, clothing, furniture, printing, or home decorations. By thus initiating the child in the creative and art side of manufactures, it seeks to give the rising generation such power in design, such taste and such skill in artistic execution as will prepare it to carry forward the future industries of our country.

PURPOSE AND VALUE OF DRAWING EXERCISES

The broom holder which the child brings from school seems to the average parent of little value, and he is apt to denounce drawing as a "frill" when he learns ten or twelve hours were

Brush broom holders, a problem in construction and applied design as worked out by eighth grade pupils, Cleveland, Ohio.

consumed in its making. What the average parent fails to see is that the child, in making the broom holder, has been grappling with the basic problems of industry, namely, design and artistic execution.

The making of the broom holder is assigned the child as a task in production. He is given the type of article and material, and is placed under the same limitations as the producer; his broom holder must be suited to its purpose, must be cheap and beautiful. In its construction there is involved, first, the making of the working drawings of the different parts. This necessitates the exercise of the power to visualize, the capacity of seeing things before they really exist; it necessitates also the exercise of taste in determining size, proportion, and form, and it presupposes the ability to represent what merely exists in thought and feeling.

After the working drawing comes the problem of the pattern, that is, the translation of the drawing into a working guide which may serve for the making of any number of broom holders. Indeed, the making of patterns is in itself an industry.

With the pattern made, there remains the problem of decoration. This necessitates the exercise of creative power and of taste in fixing upon an appropriate unit, in determining color, space relations, proportion, balance,—in a word, in bringing forth a decoration appropriate to the material, to the object, and to its use.

There remains finally the construction of the broom holder in accord with the pattern and decoration, or in accord with the provisions of the design, and this calls into play the exercise of artistic skill in execution.

The making of a simple broom holder is, therefore, a relatively complex problem. In its construction, the child has to meet and overcome exactly the same type of problems and difficulties as the man who designs and makes a new tool, a new

piece of hardware, a new article of furniture, or a new apron, cap, hat, blanket, dress, or a new design of lace, carpet, or wall

Belt and bag of leather, a problem in construction and applied design, Cleveland High School.

paper. But this is exactly what the parent fails to see, who complains of the time taken to make a broom holder; he fails to see that the child is facing the problem of production and is acquiring that power in design and artistic skill which underlies

modern industry. What is true of the broom holder is equally true of the picture frame, the book holder, the pitcher, and the tile. The child, in designing and making these, is at one in thought and skill with the producer of furniture, hardware, crockery, or ornamental tile.

For the child to make a freehand drawing of a twig, say of a maple, to work certain of the suggestions gained from the drawing over into units of decoration, to give these color, and to combine them in the decoration of a border or square of paper or cloth, seems to the hard-headed tax payer a waste of time, energy, and money. However valueless this may seem, the child is in reality exercising his imagination, his judgment, his taste, and his power of representative expression. He is, in fact, doing a piece of artistic creation; he is doing work similar to that done by the designer of wall paper, by the decorator,—in a word, he is expressing the same creative powers, utilizing the same type of taste and skill as is employed in all decoration, whether it be in the ornamentation of a stove, a grate, a door plate, a piece of furniture, of leather work, of jewelry, or of art glass.

Similarly in the designing and in the making of a book cover, a candle shade, or a tray, the same powers, taste, and skill are brought into use as are employed in the book bindery, in the manufacture of gas and electrical fixtures, in the production of stamped ware, and of household ornaments; while to direct the child in the designing and the making of a collar, a towel, a table cover, a sofa pillow is to give him instruction and training in those art processes and operations involved in the production of men's and women's clothing, of millinery, and home furnishings.

Tho drawing as now taught in the public school emphasizes the power to design and skill in artistic execution,—qualities

needed more especially by the designer and those superintending industries,—it is only able to make a beginning in this direction. The public school makes no claim to prepare expert designers or expert industrial artists; for one to become expert in affairs

A book rack end, a problem in metal construction and design, Cleveland High School.

of industrial art involves further study. Drawing, however, as now taught does give a start; it gives to the common workman a power of expression, an appreciation, and a skill in artistic execution which has value both to himself and to industry; it makes him a more interested and painstaking workman and places in his hands the keys of advancement. For, in order that the ordinary carpenter may become the contractor, he must be able to see what only exists in idea and he must be able to read plans; that the painter may become a decorator, he must

have appreciation and taste; that the machine man may become a pattern maker or designer, he must have power of representation and of artistic creation, and that the foreman may become the manager, he must, at least in many lines of industry, have exactly what drawing seeks to give; power in design, taste, and artistic skill. And only as drawing thus prepares the rising generation to take its place in our industries, does it fulfill its purpose and justify the place given it in the public schools of the country.

WILLIAM H. ELSON
Superintendent of Cleveland Schools

FRANK P. BACHMAN
Assistant Superintendent

POSE DRAWING

POSE DRAWING! It is an old subject, so old that one might think the last word had been said about it; and indeed there is little to add when it is to be treated from the standpoint of the art-school student. There the three requirements of correct anatomical construction, true proportions, and expressive action are the things to emphasize—the only things to emphasize. The interest of the student need not be awakened; it is already there, or he would not be in the school. Difficulties are a spur to him, not a discouragement. He is old enough and keen enough of eye to see the relations between parts, or at least to seek after them; and study—the chance to learn the three classes of facts listed—is all he asks.

We of the schools, whether grade or high schools, who teach drawing as a "required" subject, deal with pose sketching from a slightly different view-point. Students come to us at the age of twelve and thirteen, often from country schools, or from districts where drawing is an unknown subject. They scarcely draw as well as their little brothers of the kindergarten, because they have lost the divine daring of babyhood, and are so self-conscious that they fear to make a line lest it be wrong. They are painfully sensitive to their own comical mistakes, and "hate drawing" because they are so inferior to their better taught comrades in this branch. Very often they have been told by some criminally foolish teacher, or most unwise parent, that they "can't draw." "And what's the use wasting time, if I just can't?" So our problem is to teach in such a way that these, the slow, the untaught, the little capable, may be interested and awakened, and yet the clever and talented ones need not, by the same process, be stupified. Perhaps in no one branch of drawing

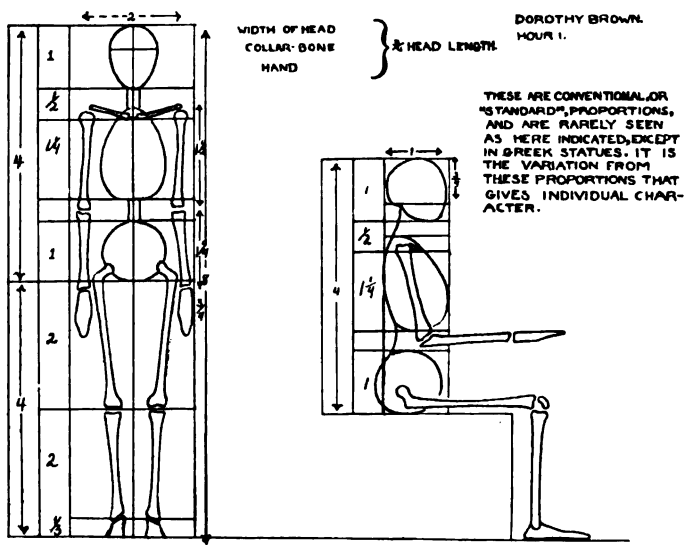
is the difference in native ability so marked as in sketching from the pose. Here the good pupil shines out in glory, and the poor one covers himself with confusion and shame; for there is not time, in a quick sketch, to apply laws, to reason things out, to study long on measurements. It is largely a question of a true eye, a quick mind, and a responsive hand. And even when the child of good mentality who "just can't draw" has become interested in his triumphant progress thru what used to seem the wilderness of object drawing, which he has discovered is an exercise for his brain fully as much as for his eye and his hand; even when nature drawing has come to him as an open sesame to new worlds, or perspective has been mastered thru his interest in mathematics, he still finds nothing tangible to help him in his sketching from the pose.

"Direction of line"—but of which line? His bewildered eye refuses to inform him which is the one great and important line amid the multitudinous folds and curves of the draped body.

"Bony construction of the body"—he has seen a skeleton; maybe he has even sketched one; but the present model is only posing an hour, and his skeleton is well padded with flesh, and amply clothed, to boot; the student's paralyzed brain refuses to present him with a vision of that once drawn skeleton, and he lacks X-ray eyes to see it before him.

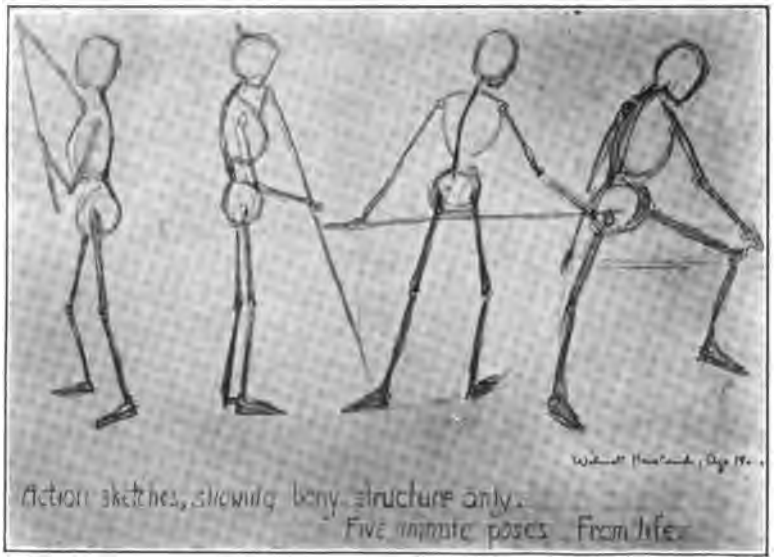
"Proportions"—they are the easiest to really see and measure, but even they are so subtle, and a difference—such a tiny difference—an eighth of an inch—turns a presentable nose into a nightmare vision. So, having made half a dozen fearful or funny, utterly inhuman attempts, and been laughed at once or twice, he gives up in black despair. Sketching he cannot and will not do. And yet, just because it does require, and produce, a true eye, a quick brain, and a responsive hand, it is, perhaps, the most important and interesting part of the work. And so—

I have tried them all—the skeleton man, made of a much conventionalized skull, a thorax reduced to an egg, and a pelvis in the indefensible form of a ball, all strung on a back-bone, with collar-bones, and jointed arms and legs. We draw him from the


WIDTH OF HEAD
COLLAR-BONE
HAND
HEAD LENGTH
DOROTHY BROWN
HOUR 1.
THESE ARE CONVENTIONAL OR "STANDARD" PROPORTIONS, AND ARE RARELY SEEN AS HERE INDICATED, EXCEPT IN GREEK STATUES. IT IS THE VARIATION FROM THESE PROPORTIONS THAT GIVES INDIVIDUAL CHARACTER.

skeleton itself, and give him the "Greek proportions," so-called, partly because they are the easiest to remember, and partly because our skeleton happens to have just the right measurements for this purpose. He helps. The children all say he helps mightily; and we follow him with a few days of quick action posing, when only these forms are drawn, to impress the lessons on the class. I have tried the snow man, made of three balls piled one atop of the other. He, too, tho somewhat lacking in action, is good for the slow of brain; better, perhaps, than the skeleton man, who really requires not a little thought, and rather an analytical mind.

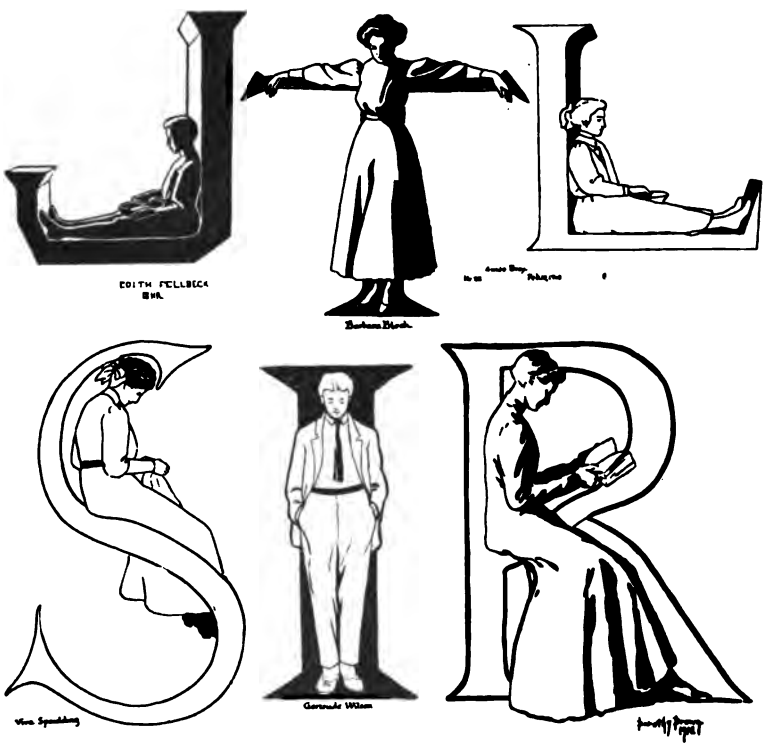
But the thing I have got the most from, the one thing that ever aroused enthusiasm, even in the breasts of the utterly hopeless, that caused the class to vote as one man for a pose, even in preference to a charming bunch of pink and silver pussy willows,



and made them so anxious to draw that not one of the twenty would volunteer to pose for the rest,—that was—letters—human letters. Here are a few of the results, taken largely from the work of freshman classes, and many of them the child's first attempt with the ink and brush.

It all began when we were doing "texts" at Christmas, and one mischievous little girl wished to present her brother with the charming and appropriate sentiment,

"If money talks,
As some folks tell,
To most of us
It says, 'Farewell!' "



Initials with the figure used decoratively, by high school pupils, Kansas City, Mo.

She was required to make an "ornamental" initial letter, and so the dejected youth with his hands in his pockets suggested himself as a possibility, in emulation of some very different

productions of Durer's. That was a year ago. The present initial was drawn this year, by the pupil whose name is signed.

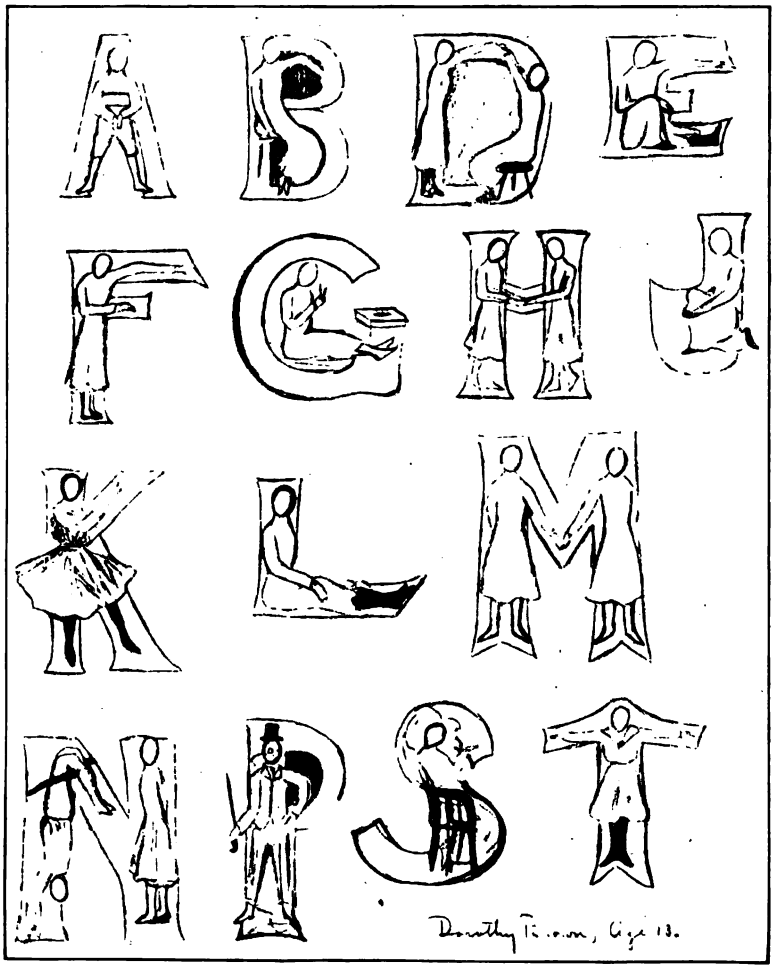
Why not other letters? we thought. T was immediately suggested, and was duly posed and sketched. L (ittle Jack Horner) was easy, but as the class had no boy small enough, we had to substitute a girl. Part of the class, too, had to sit on the opposite side of the model, and so they experimented on G(ood Eating), U(seful Recipes), J(unior parties), etc. P(arasols) presented themselves as the possible subject of an essay. B and R worked out from the same pose, and both seemed a possible initial for a bookmark, or a reader's text. S had sewing as its subject.

Now all this is interesting and amusing to beginners; and it is worth something to get a child really enthusiastic in his interest, even at the expense of introducing a play element. But this is not play at all. It has many advantages, beyond the first and greatest one, that it does delight the pupil, and make him willing to work hard and patiently at what is, usually, a very difficult task. And these are its advantages.

First, it helps astonishingly, in many cases, with proportions. The child, looking at the model, sees the letter, rather than a human being, and, in that simplified form, the big proportions present themselves to him in a much less bewildering and complicated form. Second, in such letters as the R and the S, it helps with the action; gives, unconsciously, the key to the great "direction of line" of the figure. Try to get a class to draw the S pose, without mentioning that letter, see what results you get—and try again, with the letter in mind! Try a kneeling figure with her head on her knee, for D(espair), and see if you can get it as well, without fitting it into the letter. Unquestionably it gives the "big form," in a simple and easily understood manner. Last, and most important, it suddenly illuminates, for the student, the meaning of "simplicity," and one of the reasons for it. If

they are sketching Edith, for instance, why isn't it of vital importance to put in the things that appertain to Edith—the obvious facts that she has eyes, nose, and mouth; that her hair is curled, or straight; that her sleeve has an anchor embroidered on it, her skirt is pleated just so, and her shoes are buttoned? To the mind of the 13-year-old, these are facts of much importance. They impress themselves upon him much more forcibly than does the exact size of the head in relation to the body, or the articulation of arm and hand, or the length of the foot. The child sees that embroidered anchor and the buttoned boots definitely and clearly, and, even after he has measured six times, and looked an hour, he is still a bit uncertain as to the anatomy and proportions. So, if he is sketching "Edith," he puts in those things that, for him, identify "Edith." Matters are different, tho, if he is sketching an initial letter. He is at once reconciled to leaving out many of those "dear details." He feels that the grace of the big lines, the relation of the parts, and the omission of all detail are necessary from a decorative standpoint, and doubly so, if it is his intention to some day use the initial, much reduced. If he does not feel this the first time, he cannot fail to do so, after looking over the class results. The use of ink and brush, confining the shadows to the greatest ones, without which the form would be lost, is a further help in simplification; and the broad, poster-outline, forcing him away from small and niggling hair-strokes, leads in the same direction. Like any other sort of work, it may be carried too far, or unwisely used; but if no sacrifice of essentially good and careful drawing is made, these human letters are invaluable. There is no reason why they should not be used in the upper grammar grades, as well. They are eminently adapted for the young student.

Nearly every letter may be posed and drawn. The page of small letters was made at home, by a 13-year-old girl,



Pencil sketches giving suggestions for the use of the figure in connection with initials, by a high school pupil, Kansas City, Mo.

who became so interested she had to try her inventive hand; and while some of the letters could not be posed, you will, if you set the class to work, have others which are practical suggested in their

place. For the N, for instance, one suggestion was a boy, sitting on the ground, with a squirrel perched on his knee—Nature study!

Another plan I have found good, in pose sketching, not only for the beginners, but for the most advanced classes, is to pose the model "after" Holbein, Durer, Titian, or some other great master. The girl in the paint-apron, in two tones of gray, and black ink, is arranged "after" Holbein's Christianna. The

sketch was none the less a study of proportion and construction for being so posed, and the class gained, in addition, an acquaintance with that charming and simple portrait. There is one disadvantage in such work; only a few in the class can see the model from the same point of view, and get the same arrangement that the master worked out; but they can all think of arrangement, at least, and gain a standard of some sort, thru seeing a few great paintings. Manet's "Boy With a Sword" would be good for any class of youngsters to study in this way, while they drew one of their classmates in a similar pose. Velasquez's Don Carlos, aged (about) 9, and again at 14 or 15, are charming for the same use. Statues are very easily posed. The Lorenzo and the Juliano of Michelangelo furnish excellent suggestions. The Greek reliefs are full of exquisitely graceful and simple poses. Any collection of prints of portraits is rich in compositions that may be adapted for class use, or Titian's "Man With a Glove," Holbein's "Erasmus," single figures of Georgione or of Rembrandt, Raphael's few portraits. You teach no less sketching by their means; and if you "steal" the arrangement, and do so frankly, you do no more than Manet did continually, or than Shakespeare did, in a different form. And you teach, in addition to the sketching, and without sacrifice of time, or much talking, appreciation of good drawing, of good arrangement, of good light and dark. Usually the fewer words you use, the better—especially if they are technical words. You can easily lose yourself and your subject in a fog of speech. The picture is probably more eloquent than you, anyway; and if you give it a chance, it will connect the pose drawing, by many unexpected threads of interest, with history, with literature, with all the multitudinous interests of the child's life. It pays.

FLOY CAMPBELL
Manual Training High School
Kansas City, Missouri

ANNOTATED OUTLINES

JUNE

RESULTS in every grade during this closing month should be the best yet. All the children have learned, all the skill they have acquired, all the taste they possess, should be reflected in their final work, the masterpieces of the year. Seeing is not only believing; it is inspiring. The children should see all the good work the teacher can get hold of, work both by children and adults, of the kind required in the grade. For this reason the outline this month is made up largely of illustrations.

PRIMARY

FIRST YEAR. Complete the booklet entitled Springtime.

In making the cover, let the children have their way as to decoration. Let the design be amusing, from the child's point of view. Steer them only in arrangement, and in the use of color. Use not more than two colors, on manila paper. See Plate I. Bind with string or thread.

SECOND YEAR. (U) Complete the booklet entitled Spring Growths.

Encourage originality in the subject matter, but lead the pupils to make a good arrangement of it. Select a colored paper for the cover, and use only black and white upon it. See Plate I. Bind with thread.

THIRD YEAR. Complete the booklet entitled Outdoor Neighbors.

The design for the cover may be a little more formal than in previous years. It may be ornamented with a border, or surface pattern, or in any other way. Insist on thoughtful spacing and careful drawing. Use a colored paper for the cover, and a darker or lighter tone of the same; or make the colored ground by tinting the drawing paper. Bind with thread.

Examples of cover designs are given in Plate I. These designs I have made by combining elements found on primary school papers gathered in the Guild Contests during the past four or five years. I have not attempted to correct or improve the drawing, or to outdo the best lettering the children produced. The peculiar working of the child mind is evident in many of these; in others, one feels the pressure of the teacher. For example, one is not surprised to learn that the name of the boy with the net, Fig. 1, is W. L. Thomas!

Plate I. Examples of covers appropriate to primary grades.

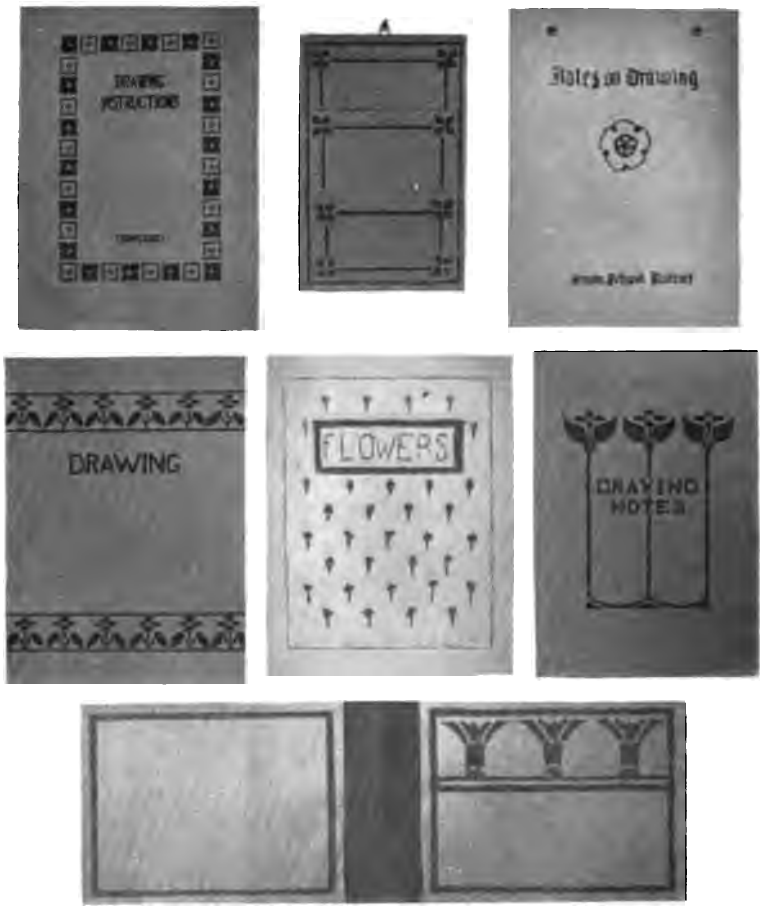
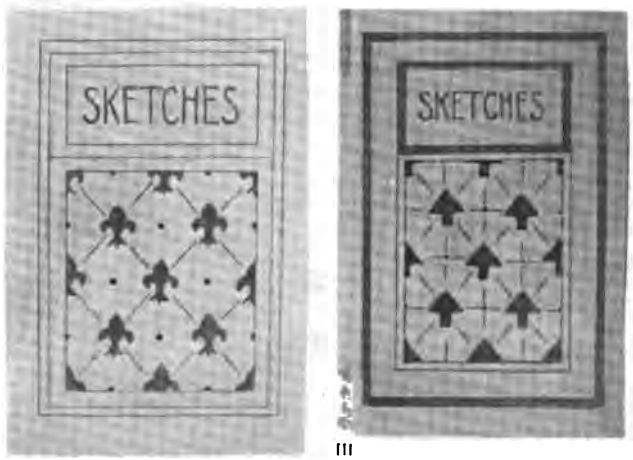


Plate II. 1, 2, 3 and 4, Cover designs made under the direction of Miss Grace L. Bell, Concord, N. H. 5, Wall pocket, by Elizabeth A. Smith, Nantucket, Mass. 6, An envelope cover by David Malkiel, Phillips School, Boston, Mass. 7, Portfolio with morning-glory motif designed and made by John McKay, Cleveland, O.

How much was teacher and how much was pupil in Figure 3 is a puzzle. The change from stones thru grass to flowers in the ground is certainly the thought of a clever boy. The "rhyme" is boyish too! Figure 5 is unusual. The aim in such an arrangement must be an even distribution of attractions. The ornament in Figure 7 is from a language paper where a chicken "measured with his papa"! The birds in Figure 8 came from an illustration of "Four



Cover designs made under the direction of Mr. H. W. Shaylor, Portland, Me.

and Twenty Blackbirds"; the spacing of the title was suggested by the arrangement of the letters in Figure 4. The Jacks-in-their-pulpits, Fig. 11, preaching to the bald-headed congregation of buds, seems to me extremely clever. Figure 12 contains an ornament more appropriate for a fall paper, but the suggestion may be worked out with other elements appropriate to spring.

Teach the children to bind their booklets with thread, sewed thru the fold of the leaves (when they are double), or as indicated in Figure 2. No neckties, please.

GRAMMAR

In these grades greater emphasis should be placed on fine lettering, harmony of color, and consistency in handling.

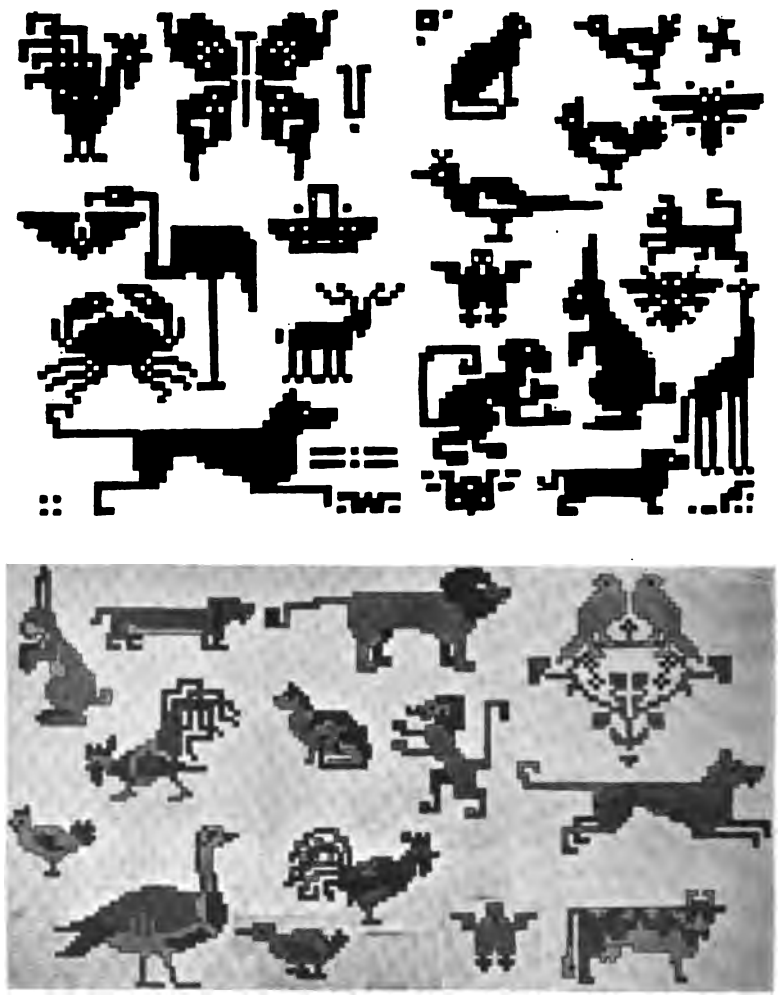


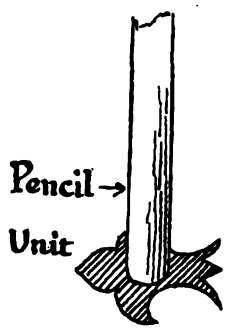
Plate IV "Squared animals," by Alice E. Woodman, reproduced from Palette and Bench.

FOURTH YEAR. Finish the cover with drawn decoration; the color scheme to exhibit two tones of one color.

Plate II shows three examples of decoration from the front views of flowers; two are cover designs; the third is a card or letter rack for a wall.

FIFTH YEAR. (U) Finish the cover, with stamped or drawn decoration; the color scheme to exhibit two tones of one color.

Plate II gives four examples of covers with units derived from side views of spring growths. Plate III gives two others, in which the units are actually stamped upon the covers.*



*The following letter from the Supervisor of Drawing, Portland, Maine, explains how this was done:

Dear Mr. Bailey:—

I send you under a separate cover a simple design for a booklet cover, not so much for the design as to illustrate a new method of wood-block printing, which I have been experimenting on for a little of late.

I have been thinking of making an attempt at wood-block printing for surface covering, but have been deterred from so doing on account of several "lions in the way."

Some of the difficulties which I thought would beset one in this work may be enumerated as follows:

First, since a good knife seemed to be an absolute necessity, and so few boys own a really good knife, i. e., one that is sharp and of suitable size blades, and

Secondly, since none of the girls are the owners of any kind of knife,—and to attempt to do the work with a large portion of the class unsupplied with requisite tools seemed hardly worth the candle.

Thirdly, the time required, together with the liability to spoil the design by cutting across, or even with the grain, to say nothing of other less formidable "lions" appeared like a prohibition for class work unless in schools where a more or less complete manual training outfit could be depended upon.

Since "Necessity is the mother of invention," after thinking the matter over, it occurred to me it would be possible to dispense with both knife and wood. Accordingly I made an attempt which I will describe; the result is the work referred to as inclosed under a separate cover.

I first made a unit of design on any paper I could get hold of. I cut out this unit from a sheet of 8-ply photographers mounting board, using the rough side on which to apply the color, as shown later.

SIXTH YEAR. (U) Work the Totem, in cross-stitch embroidery, by weaving, or otherwise, as desired; the color scheme to exhibit a group of tones.

The illustrations of "squared animals," Plate IV, are by Alice E. Woodman, and are here reproduced from "Palette and Bench," to help the children to see how charming and how amusing such things can be. Those in two tones

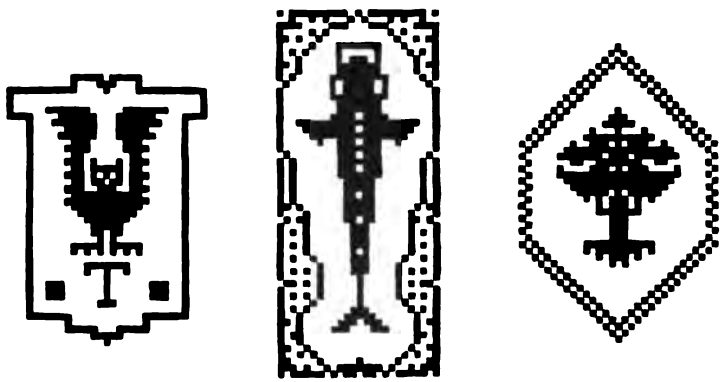


Plate V. Totems to be woven or worked in cross-stitch. Sixth grade work.

show an inviting field for experiment. Plate V gives three Totems complete. The first is for members of a Thoreau Club; the second for a Trout Club; the third for a Botanical Club. The first and third show typical borders, one on

---

Since my unit was quite small I put a bit of gum on the wrong side and placed the smooth end of my pencil on the gummed portion, using the pencil as a handle in stamping the unit in the desired position on the surface to be covered.

Mixing a little water color with gum Arabic, (I suppose mucilage would answer, since it is to prevent the water color from drying too rapidly), I applied my unit as I would use a rubber stamp. Of course some "touching up" was necessary since the color would not be perfectly even and occasionally the unit would not be perfect, but I imagine the same difficulties would occur in the use of wood blocks.

The units are readily cut out with scissors which are to be found in nearly every schoolroom. A very small piece of mounting board would supply a class, and this is all the material required. The time necessary is reduced to a minimum, hence it seems to me worth a fair trial by anyone who desires to make the attempt.

H. W. Shaylor

Plate VI. Three designs for canoe pillows, embodying aquatic motives to be worked in stencil. Seventh grade work.

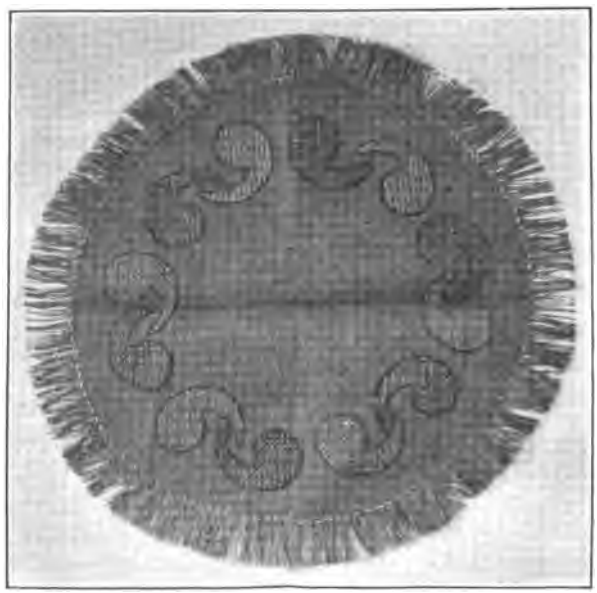


Plate VII. A design for a lamp mat, worked on burlap with linen thread by Miss Katharine F. Steiger, Rochester, N. Y.

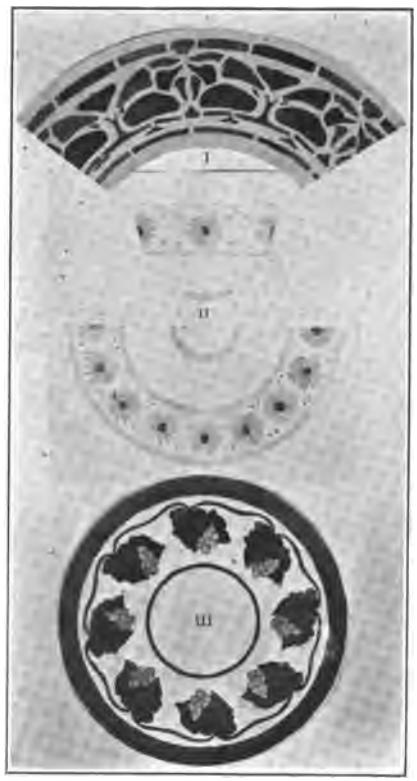


Plate VIII. 1, A design for the decoration of a plate by Frances Macdonald, VIII, Mt. St. Joseph Academy, Brighton, Mass 2, Design for a cup and saucer, Mary R. Lamoreaux, VIII, Southbridge, Mass. 3, Design for a plate by Ina Hopkins, aged fifteen, Oneonta, N. Y.

amples of work by eighth grade pupils. Other illustrations of good designs will be found in the Editorial.

the vertical and horizontal, the other on the diagonal motive. The fish totem has a symbolic border composed of the debris upon the bottom of the pond, fanned away from the fish by the constant movement of fins and tail while he is "at rest."

SEVENTH YEAR. Make the Pillow Cover, to be used in a canoe; the ornament to be stencilled, and to exhibit a group of hues.

The three designs in Plate VI, are typical. The first makes use of the kingfisher as motive. The second shows adaptations from two shells and two aquatic plants. The third is derived from a flock of young ducks, the ripples they produce, and four frogs, pebbles, and floating twigs.

EIGHTH YEAR. Complete the circular mat or plate; the coloring to be any harmonious group of hues.

Plates VII to IX show ex-

H. T. B.

Plate IX. A leather mat designed and made by Solomon Malkiel, VIII, Phillips School, Boston, Mass.

HIGH SCHOOL

FREEHAND DIVISION

The careful drawing of nature forms with the coming of spring brings back to us an abundance of material for design which should be utilized. It would be well to take up with some thoroness the problem of the repeating pattern in all directions for a surface covering. Consider the possibilities of this in its possible positions as a decoration for a horizontal or vertical surface.

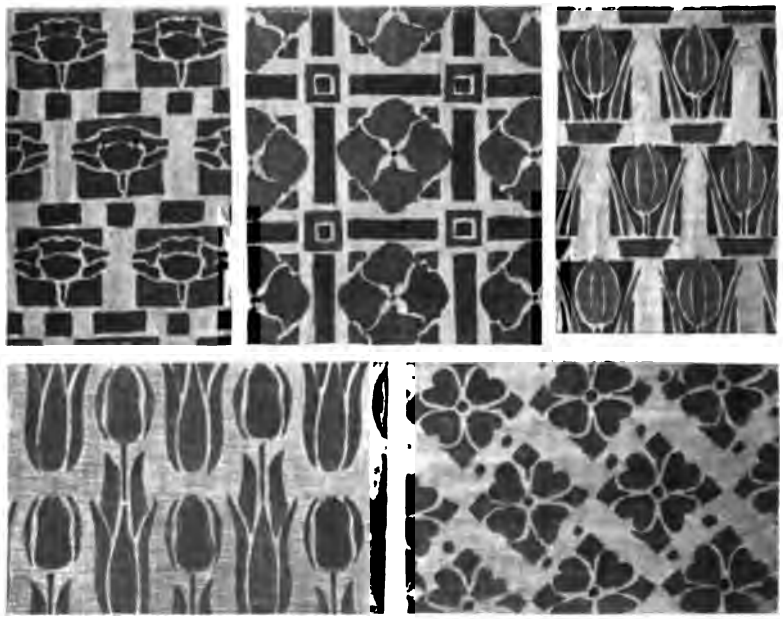
Raise the question as to what differences should exist between these classes of design, and why. Invariably illustrate a design lesson with blackboard drawings and pictures or plates of good historic examples.

Borders based on similar nature motives should follow the surface patterns. The corner in a border problem is frequently ignored. It is worth attention and should not be evaded.

Materials for the carrying out of the chosen design motive and repeat are many. Rice paper gives a silky finished appearance whether worked in crayon or water color. Color applied to the back of rice paper with either medium giver a pleasing softened effect when seen thru from the front. Thicker papers are treated in the usual ways and mediums.

The stencil and wood block are at our command and are not too difficult for these students, and may be applied satisfactorily to paper as well as to textiles.

HAROLD HAVEN BROWN
Stuyvesant High School
New York City

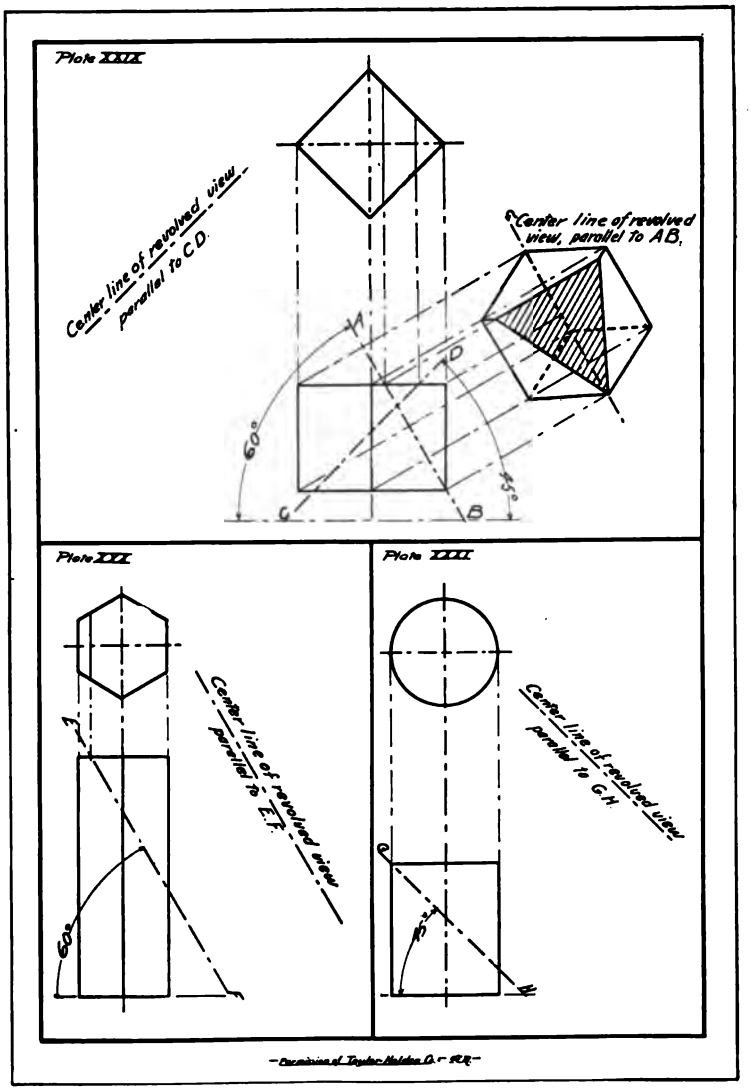


Surface patterns by pupils in the Stuyvesant High School, New York City.

MECHANICAL DIVISION

Copyright reserved by The Taylor-Holden Co.

The following problems illustrate sections obtained by cutting thru the various type solids at different angles to the base and making a revolved view of the object in order to represent the exact sizes and shapes of the sections thus obtained.



—Permission of Taylor-Holden Co.—R.R.—

When making a revolved view of the object, the center line of the revolved view must be drawn parallel to the line representing the edge of the cutting plane.

Plate XXIX. (a) Represent a cube having its vertical faces at 45 degrees to the vertical plane and cut the cube by a line, AB, which in the front view represents the edge of a cutting plane at an angle of 60 degrees to the base of the cube. The faces of the cube are 2 1-2 inches square. Make a revolved view showing the exact shape of the section obtained and the resulting projection of the cube.

(b) Make a second revolved view showing the section obtained when the line CD represents the edge of the cutting plane.

Plate XXX. Represent a hexagonal prism which is 2 1-4 inches across parallel sides in the top view and 5 1-2 inches high. Cut the prism by a line which in the front view represents the edge of a cutting plane at an angle of 60 degrees to the base of the prism. The line cuts the front view of the prism at a point 2 3-4 inches above the base on the right side. The top view of the prism shows it placed so that four sides are at 30 degrees to the vertical plane. Make a revolved view obtaining the exact shape of section and the resulting projection of the prism.

Plate XXXI. Represent a cylinder which is 2 3-4 inches in diameter and 3 1-4 inches high. Cut the cylinder by a cutting plane which is represented in the front view by a line at 45 degrees to the base of the cylinder. Make a revolved view showing the exact section obtained and the projection of the remaining part of the cylinder.

These problems may be varied by assuming various angles other than those specified for the position of the cutting planes. Additional problems may be obtained by using the square and hexagonal pyramids, the cone and other type solids for which dimensions have been given in previous problems, assuming different angles for the positions of the cutting planes. In this way, no two pupils in the class will have exactly the same problem to work out.

By the time that all of these plates have been completed, it will be near the end of the school year, and each pupil should complete his set of drawing plates by making a title page, lettering it carefully. It should contain the following lettering:

First Year
MECHANICAL DRAWING
John H. Harris
Technical High School
Cleveland, Ohio

This title page should really be a design plate in lettering and the pupil should select a style of lettering appropriate to the contents of his book of drawings. The book that I can recommend as best suited to the needs of the pupil, both in contents and price, is "The Essentials of Lettering" by French and Meiklejohn, which was reviewed in the March School Arts Book.

FRANK E. MATHEWSON
Technical High School
Cleveland, Ohio

THE WORKSHOP

WOODWORKING

SANDALS

THE plan for bare-foot sandals, here given, is thoroly practical and the construction is easy. Possibly it may appeal to some craftsman or nature lover.

CONSTRUCTION

Place your bare foot upon a piece of paper, mark around it, and cut out the pattern which corresponds to the inner line, Fig. 1. Place this pattern upon a larger sheet and mark all around 1-2″, smoothing out irregularities and rounding the form. This gives you the shape and size to cut the leather. The sole-leather from which mine were made cost about fifty cents.

A keen, sharp-pointed knife is necessary for this cutting,—one of the sloyd manual training knives is excellent.

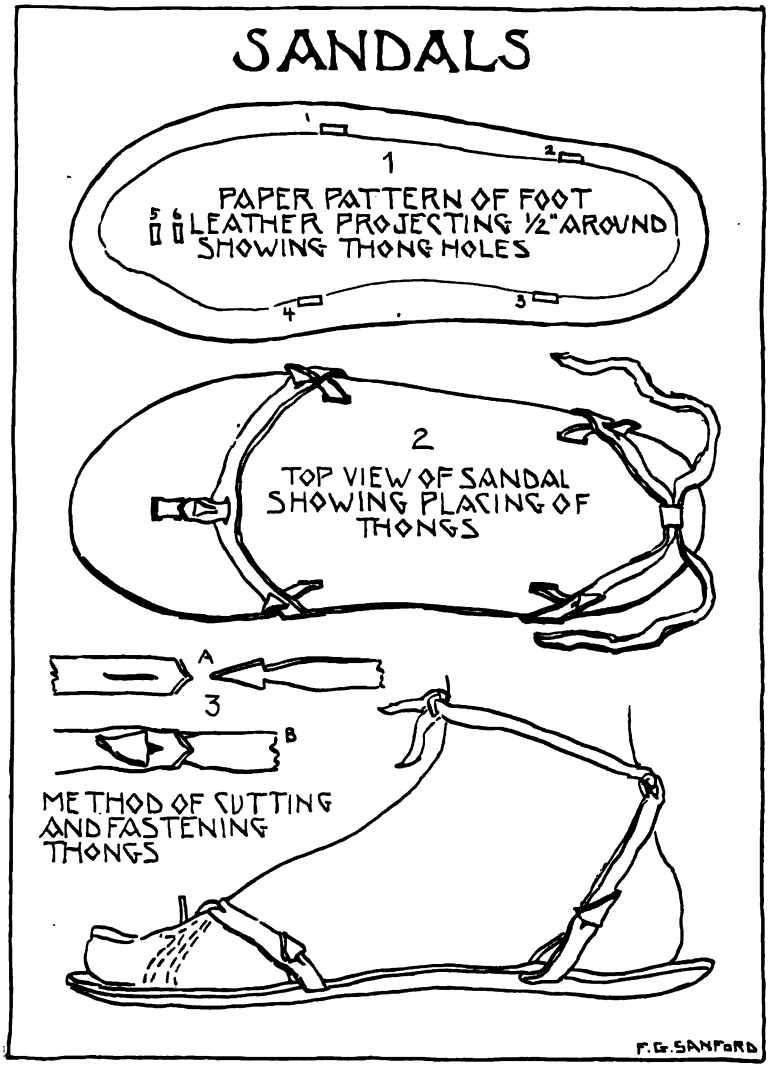
Place your bare foot upon the leather and mark thong holes as follows: 1 just behind the first joint of the little toe, 2-3 on either side of the heel, 4 just behind the first joint of the great toe, 5-6 between the great and the next toe, and 3-8″ apart. These holes are all 1-8″ wide and 3-8″ long. A piece of belt lace provides the thongs. The method of fastening is simple but entirely effective and strong.

Cut one end to a spear point as in A, Figure 3. Determine by measure how far up the buttonhole must come, and cut.

Figure 3, B, shows the fastening for the toe strap ends, as in the top view, Figure 2. When this point is pulled thru the slit and turned square across, the fastening is very strong and will withstand all the strain it will get from walking.

Figures 2 and 3 show enough to indicate methods of buttonholing or fastening the thongs. Length of the strap across the foot must be determined by measure. The two heel straps are of course long enough to tie or cross behind the heel and tie in front of the ankle. Reverse the pattern for the left sandal. The writer wore a pair of these sandals constantly thru one summer in Maine,—wore them thru pasture and dusty road and woodland, with comfort. One must learn to lift and set down the foot squarely, and this done, there is no place you cannot go with them—in the country.

The leather soon curves to the foot. If sand and gravel works over the edge, the next step shakes it out, and for this reason this ancient form is better than the partly closed-in sandal of commerce.


SANDALS
1
PAPER PATTERN OF FOOT
LEATHER PROJECTING ½" AROUND
SHOWING THONG HOLES
1
2
3
4
5
6
2
TOP VIEW OF SANDAL
SHOWING PLACING OF
THONGS
A
3
B
METHOD OF CUTTING
AND FASTENING
THONGS
F. G. SANFORD

Try a pair. They will cost you not over $1.00 and give you lots of comfort when you get over being called a crank, and your ultra-fastidious friends recover from the shock of seeing the naked foot.

FRANK G. SANFORD
Oneonta, New York

WEAVING

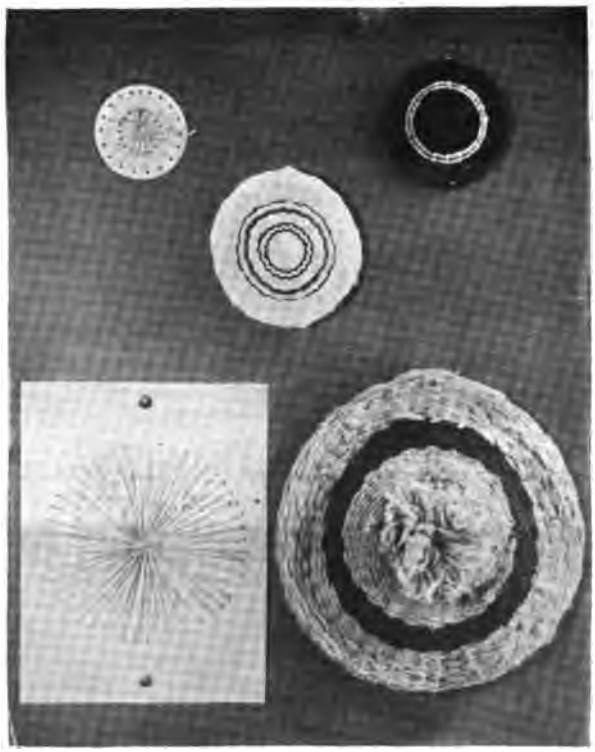
DOLL'S TAM O'SHANTER CAP

MATERIALS. Stout cardboard, darning needle No. 12, double Germantown yarn.

DIRECTIONS FOR MAKING

As the warping for this exercise is rather difficult, it is best to let all the pupils make looms and caps of a uniform size at first. Afterwards repeat the exercise, letting each pupil take the measure of a doll's head or her own, and make a loom of the necessary size. Use the same proportions for any size of loom. After measuring the head, take one-sixth of that measurement for the radius of the smaller circle. Draw the smaller circle. Draw from the same center a larger circle, using a radius about one and one-half times that of the smaller circle. Both circles should be perforated with an uneven number of holes about one-half inch apart. Be sure to have an uneven number. This is easily done if the circle is divided first into quarters and one extra perforation is placed in the last quarter of each circle. For the first exercise, use a six-inch square of cardboard. Find the center and with a radius of one inch draw the smaller circle. With a two and one-half inch radius and the same center draw the larger circle. Perforate the outer circle with holes one-half inch apart, being sure to have an uneven number. The perforations of the inner circle should fall on the same radius as those of the outer. Use about three yards of yarn for warp. Begin warping in the quarter section having the greatest number of perforations, or where you placed the last odd one. Place a temporary knot in the yarn near one end to secure the warp. Hold the loom so that the warp for the top of the cap will be up, and that for the under side will be down. Push the needle downward thru a perforation of the small circle. Bring it up thru the corresponding perforation of the large circle. This places the first warp thread for the under side of the cap. Continue the thread across on the upper side forming a diameter of the large circle. Bring the needle thru to

the under side, then thru the small circle to the upper side. Repeat these steps going down thru the next perforation of the small circle, and up thru



1, Cardboard loom for a Tam o' Shanter cap. 2 and 3, Doll's Tam o' Shanter caps. 4, Loom for a child's cap. 5, Child's Tam o' Shanter.

one of the larger circle, etc. After threading along each diameter on the top, look on the under side to be sure that none of the short warping has been omitted. When the last perforation of the outer circle has been reached,

draw the yarn toward the center of the top and begin to weave over and under until the top of the cap is completed. Next carry the weaving yarn thru the nearest hole and begin to weave the under part, at the small circle first. When the weaving has been finished, remove it from the loom by breaking the cardboard and finish with a small pompon on top.

This cap can be made with bands or borders of luster thread used in connection with the yarn. It can also be made of roving large enough for a child to wear.

KATHARINE FRENCH STEIGER
Director of Domestic Art
Rochester, New York

NEEDLEWORK

COSTUME OF AN IRISH BARD

THE HARP THAT ONCE THROUGH TARA'S HALLS

"The harp that once through Tara's halls
The soul of music shed,
Now hangs as mute on Tara's walls
As if that soul were fled.
So sleeps the pride of former days,
So glory's thrill is o'er;
And hearts that once beat high for praise
Now feel that pulse no more.

"No more to chiefs and ladies bright
The harp of Tara swells;
The chord alone that breaks at night
Its tale of ruin tells.
Thus Freedom now so seldom wakes,
The only throb she gives
Is when some heart indignant breaks,
To show that still she lives."

Thomas Moore.

Among the music characteristic of the different nations, there is none which portrays more vividly the habits, character and temperament of the people than does the Irish music.

The history of music, and the history of Ireland are very closely interwoven, for all noteworthy deeds of the times were chronicled in verse and sung or recited by the Bards to the music of the harp; thus for many centuries all music was in the hands of the Bards.

The Bards have been variously called poets, prophets, and singers, who celebrated in verse and song, the deeds and praises of great men. It was the duty and privilege of the Bard to assist at religious ceremonies and royal festivities, to excite armies to victory, and often to lead them in battle. A volume of "Ancient Laws of Ireland" gives this definition of a Bard:—"A bard, now, is one without lawful learning, but his own intellect." This definition is, however, rather contrary to what history tells us of the careful education of the Bards. They were educated by the Druids in institutions in remote parts of the country where they were taught the rudiments of law, and something of physics and history, all thru the medium of poetry, in fact all the knowledge of the times was preserved in this way. It took about twelve years to educate a Bard, at the end of which time he received a degree. Altho the course of study was very severe and extended over a long period, the profession was a most honorable one and attracted persons of the highest rank, for those who finally received the degree had peculiar privileges and were richly endowed, so that they were persons of the greatest influence.

At one time the profession numbered about one thousand, and as they did no work, they finally became quite a burden to the State, and their numbers had to be reduced, and after the conquest of Ireland by Henry II the profession began to decline.

Tara, alluded to above, in Thomas Moore's beautiful ballad, was once the seat of government for Ireland, and was a meeting place for the Bards in their poetical and musical competitions. There was a tournament of this kind each year at Tara, and prizes were awarded to the winners. The history of Tara, and the proceedings of all the kings, learned men, and nobility who met there, were all carefully noted in a book called the "Psalter of Tara," and this book also contained a list of all the tournaments held there, and the winners of each. The Irish Bard is alluded to in Richard III by Shakespeare, who says that one of them had told him "he would not live long after seeing Richmond." Other writers of the time tell of Irish Bards luring men to death by their rhymes and the story goes that Senchan Torpest, who was the chief poet of Ireland in the seventh century, uttered a "aer" (satire) on rats, which killed ten of them on the spot.

It is very difficult to describe the dress of the Bards with any accuracy, but, except in rare cases, the Bards belonged to the order of the nobility, hence their dress was rich in material, and partook of the colors of the royal families. Other writers tell us that the Bards were authorized to "have garments of many colors."

By many writers the Bards are confused with musicians, whe often accompanied the recitations of the Bards, with music on the harp, but the following quotation will serve to show that the Bards were distinct from the musicians

"Both Barde and Harper is prepared
Which by their cunning art
Doe strike and cheare up all the gestes
With comfort at the heart."

"The Barde and Harper mellodie,
Unto them do beginne
This Barde he doeth report,
The noble conquests done.
And eke in Rimes shewes forth at large,
Their glorie thereby wonne."

In ancient times the harp was the favored musical instrument of Ireland, as is shown by its familiar presence on the flag. The Clairseach was the large harp, "the festive or heroic harp of the chiefs and ladies, as also of the bards," having from twenty-nine to fifty-eight strings. The harp is referred to in literature as early as the ninth century, and is depicted in the sculpture of the tenth century. The following extracts show the value placed upon the harp by both Irish and Scotch:—"A small but singularly sweet, and very beautiful Harp, which had belonged to Donnechadh Cairbreach O'Brien, whose father was one of the last of the Irish kings, had been by some means removed to Scotland, and Mac Connedke, the poet to the Irish chief, was directed by his master to endeavor to recover it, either as a free gift, or in exchange for a flock of Irish sheep. The envoy failed to induce the Scottish chief to restore O'Brien's Harp, and on his return wrote the following beautiful lines:—

"Bring unto me the harp of my king,
Until upon it I forget my grief,
A man's grief is soon banished
By the notes of that sweet-sounding tree.

"He, to whom this music tree belonged,
He was a noble youth of sweet performance;
Many an inspired song has he sweetly sung
To that elegant, sweet-voiced instrument.

* * * * * * *

"O'Brien's harp! sweet its melody
At the head of the banquet of fair Gabhran;
Oh! how the pillar of bright Gabhran called forth
The melting tones of its thrilling chords."

The reply of the Scottish chief is as follows:—

"No son of a bright Gaedhil shall get
The harp of O'Brien of the flowing hair;
No son of a foreigner shall obtain
The graceful, gem-set fairy instrument!

"Woe! to have thought of sending to beg thee,
Thou harp of the chieftain of fair Limerick,
Woe! to have thought of sending to purchase thee,
For a rich flock of Erin's sheep.

"Sweet to me is thy melodious soft voice,
O maid! who wast once the arch-king's,
Thy sprightly voice to me is sweet,
Thou maiden from the island of Erin."

Historical changes, and stress of circumstances have obliged the common people of Ireland to give up many of the quaint and odd customs which we associate with them, and they have now taken up many English customs. Most of the old Gaelic sports and games which had been handed down from their ancestors, have now become obsolete; the peasants no longer dance in the fields, and all country festivals now partake of English middle class life. Nevertheless, the social characteristics of the Irish people remain the same. Certainly no race of people are quite so warm-hearted and hospitable as the Irish; they celebrate all occasions, by gathering their friends around them, and seem to delight to make a feast at all times.

There is perhaps less of literature bearing on the manners, customs and dress of the Irish people than on others, as the history of Ireland is so closely interwoven with that of England and Scotland, and the dress also of the peasants and middle classes, closely resembles that of other countries of northern Europe, hence the writer has chosen for this month's costume that of an Irish Bard of the fifteenth century.

DIRECTIONS FOR PATTERNS

The word tunic comes from the Latin "tunica," meaning a body-garment, and it has come to include garments of different lengths and materials, from the time of the Romans to the present day.

Figure 1. Front of tunic. Paper 9 1-2″ x 6 1-2″. Place and letter as in chart. Point 1 = 1 1-4″ from A. Point 2 = 4″ from A. Draw curve for front of neck. Point 3 = 1 3-4″ from A. Point 4 = 1-2″ from 3. Point 5 = 2 1-2″ from 3. Point 6 = 1 1-2″ from 3. Point 7 = 1-2″ from 6. Point 8 = 4″ from A. Point 9 = 2″ from 8. Draw curve for arms eye. Point

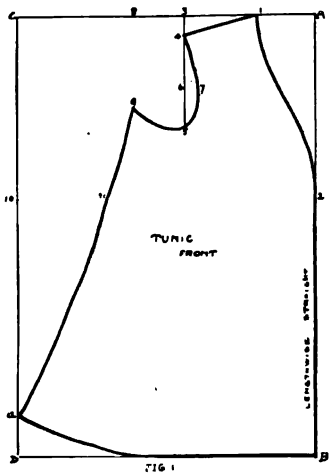


FIG 1

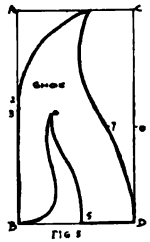


FIG 2

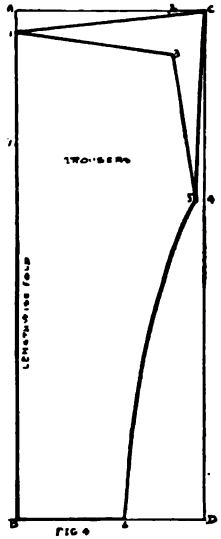


FIG 4

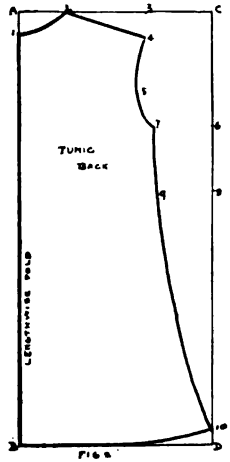


FIG 6

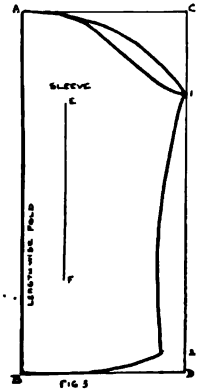


FIG 3

PATTERNS

FOR

19" DOLL

SCALE ½" = 1"

10 = 4″ from C. Point 11 = 2″ from 10. Point 12 = 1″ from D. Draw under-arm and lower edge of tunic.

Figure 2. Back of tunic. Paper 4 1-4″ x 9 1-2″. Place and letter as n chart. Point 1 = 1-2″ from A. Point 2 = 1″ from A. Draw curve for neck. Point 3 = 2 3-4″ from A. Point 4 = 1-2″ from 3. Point 5 = 1 3-4″ from 3. Point 6 = 2 1-2″ from C. Point 7 = 1 1-4″ from 6. Draw curve for arms eye. Point 8 = 4″ from C. Point 9 = 1 1-4″ from 8. Point 10 = 1-2″ from D. Draw under-arm and lower edge of tunic.

Figure 3. Sleeve. Paper 7″ x 8″. Place long edges of paper together and fold, lettering as in chart. Point 1 = 1 3-4″ from C. Point 2 = 1-2″ from D. Point 3 = 1-2″ from 2. Cut thru both thicknesses of paper from 1 - A, on outside curve, then curve in one side of pattern slightly for under part of sleeve. When pattern is opened flat, slash pattern at line EF, 1″ in front of fold, to show shirt sleeve.

Figure 4. Trousers. These are long and tight fitting, and this pattern in a full size is likely to require more variation to meet needs of wearer. Paper 11″ x 8″. Fold long edges of paper together, as in sleeve pattern. Place and letter as in chart. Point 1 = 1 1-2″ from A. Point 2 = 3-4″ from C. Point 3 = 1″ from 2. Point 3 = center front of trousers at waist. Point C = center back of trousers at waist. Point 4 = 4″ from C. Point 5 = 1-4″ from 4. Point 6 = 2 1-2″ from B. Point 7 = 3″ from A. Line 1 to B = outside of leg.

Figure 5. Shoe. Paper 2 1-2″ x 4 1-2″. Place and letter as in chart. Point 1 = 1 1-2″ from A. Point 2 = 2″ from A. Draw curve for pointed toe 1-2, and ankle 1-D. Point 3 = 2 1-2″ from A. Point 4 = 3-4″ from 3. Point 5 = 1 1-4″ from B. Draw curve for sole. Point 6 = 2 1-2″ from C. Point 7 = 1-2″ from 6.

DIRECTIONS FOR CUTTING

Place Figure 1 with line 2-B on selvage edges of material.

Figure 2. Line 1-B on lengthwise fold of material.

Figure 3. Open out pattern and place with line A-B straight lengthwise.

Figure 4. Open out pattern, and place with 1-B straight lengthwise.

Figure 5. Place with 2-B on lengthwise fold.

DIRECTIONS FOR MAKING

Trim tunic around edges, also edges of slash in sleeves with fold of contrasting color. Finish lower edges of sleeves by gathering into wrist, leaving frill at hand. Seam the leg portions of the trousers before putting the two parts together, then seam the two front edges, 3-5 together, then back edges, C-4. Open at each side, 1-7, for placket, and finish with facing.

Seam shoe, 1-2, and 1-7, and also 5-D. Seam curved edge, 4-5, into curved edge of sole.

For the shirt, which is only visible at neck and sleeves, utilize shirt waist pattern in School Arts Book of December, 1909, and for collar, use collar pattern in February, 1910, School Arts Book. The hat is essentially the same as that used in the Highlander's costume in the March number, substituting a soft plume instead of the eagle's feather. For full-sized (10 or 12 year) patterns, multiply dimensions by three, altho some alterations will doubtless be necessary in the trousers and the shoes.

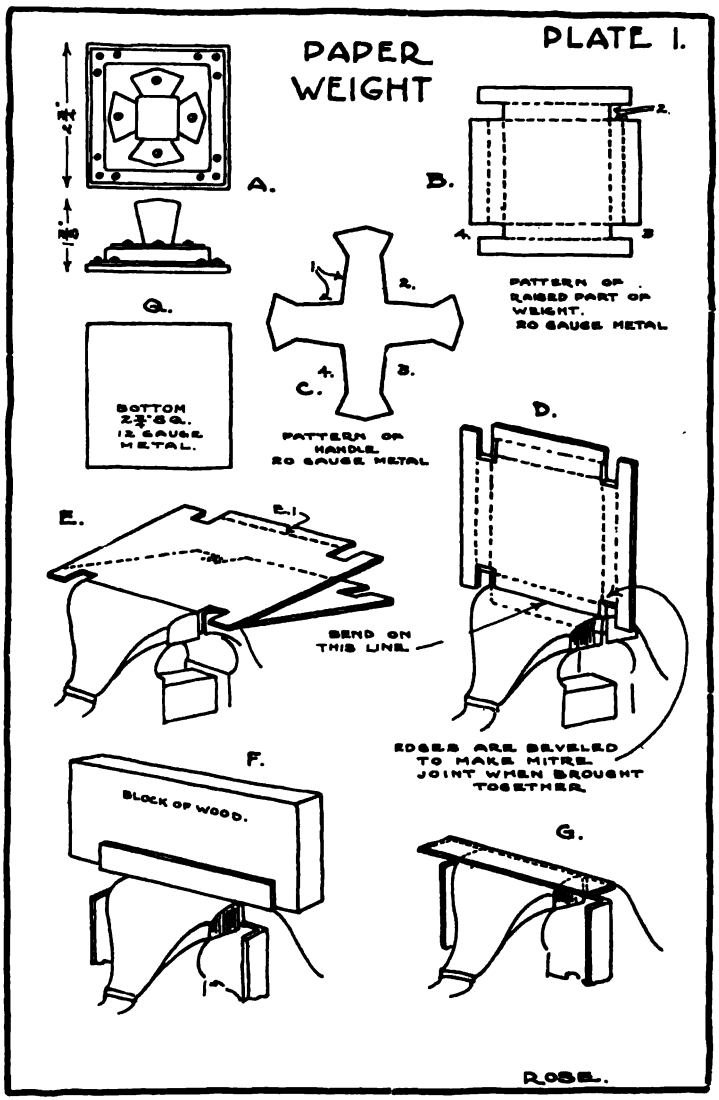
BLANCHE E. HYDE
Director of Household Economics
Newton, Massachusetts

METALRY

PAPER WEIGHT

A working drawing, Plate 1, A, giving the front and top views of the paper weight, is first necessary. From this drawing the patterns or developments are made for the raised part of the weight, and for the handle as shown at B and C. It is a good plan to use heavy paper to draw the pattern on so that, after it is cut out, the edges will be firm enough to stay in place when the pencil or scratch awl is used about these edges After drawing the patterns, take a sharp knife and cut very carefully to the line. Having the patterns, the raised part of the weight, Fig. B, is made first. Place the pattern over a piece of 20 gauge copper and with the pencil or scratch awl mark about the edges, leaving the outline on the metal. Then take a square and mark the lines on which the bends are made, shown by dotted lines on pattern. Take a No. 1 saw and saw about the edges. After sawing, the edges will need truing up with a file and the edges 1, 2, 3, 4, Fig. B, beveled to a mitre. See March Workshop. Corner of box. If the metal for the weight is to show a hammered surface, the hammering must be done before scratching the outline on the metal.

To bend the raised part of the weight into shape, fasten the piece of metal in the vise on the line shown at D. Place a block of wood in front of the metal and bend it back until it is at right angles to the part that is between the jaws of the vise, as at Figure E. This is repeated on the corresponding line E 1, on the opposite side of the metal. The metal is next turned around and placed in the vise, as at Figure F, and with the use of the block of wood, the other


PAPER WEIGHT
PLATE I.
A.
B.
1.
2.
4.
3.
PATTERN OF RAISED PART OF WEIGHT. 20 GAUGE METAL
C.
PATTERN OF HANDLE. 20 GAUGE METAL
D.
BOTTOM 2¾" SQ. 12 GAUGE METAL.
E.
BEND ON THIS LINE
EDGES ARE BEVELED TO MAKE MITRE JOINT WHEN BROUGHT TOGETHER
F.
BLOCK OF WOOD.
G.
ROSE.

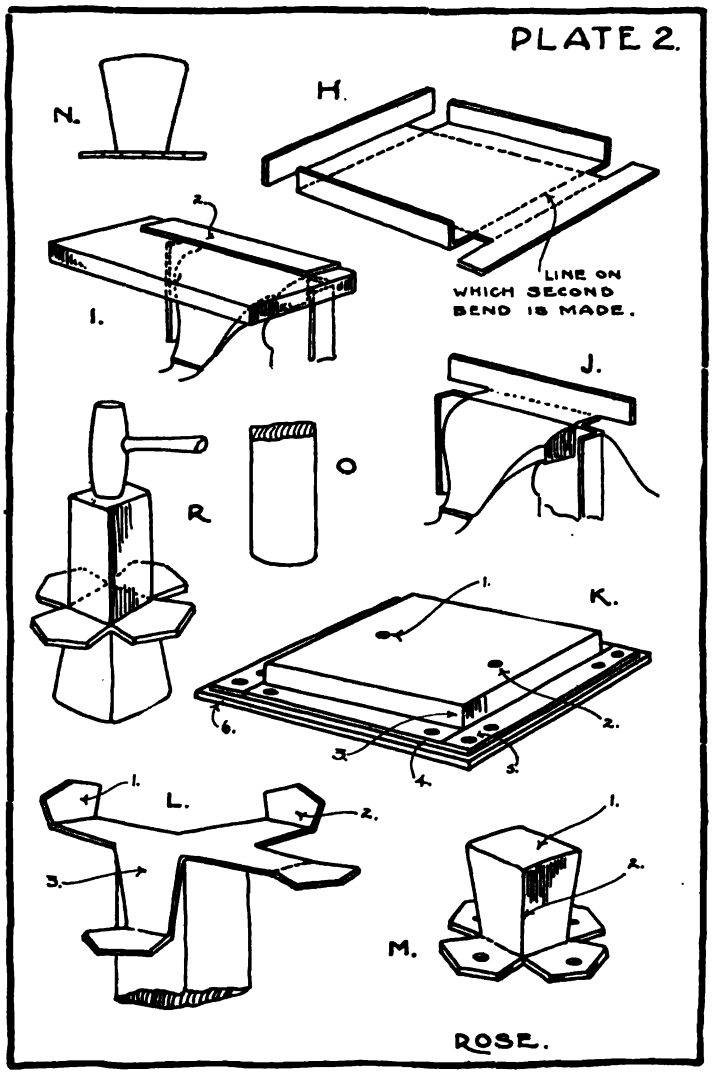


PLATE 2.
N.
H.
LINE ON WHICH SECOND BEND IS MADE.
I.
J.
R
O
K.
L.
M.
ROSE.

two sides are bent over as at Figure G. After the sides have been bent up, as shown at H, the metal is again placed in the vise, as at 1, having the top edge of the vise coincide with the inside dotted line on the metal shown at H. Take a piece of wood or metal about 3-16 of an inch thick and place it as shown at Figure I, 1. With a firm hold on the block of wood, the metal is bent back on the dotted line until the outer edge, I, 2, becomes vertical, as at Figure J. This is repeated on the three other edges, and the metal now takes the shape, as shown at Figure K. The edges that were beveled, as shown at D, now come together and make a mitre as at K 3. If the work up to this point has been carefully done, the edges will come together and make a perfect corner. If there seems to be too much metal at the corners, a little may be removed by filing; or if there is a small opening, the metal may be stretched a little by placing it over a piece of metal and hammering lightly. After shaping the corners, the outer edges, K 4, are next filed square, leaving no rough edges.

The handle is the next thing to work on, Fig. C. Place the pattern over a piece of 20 gauge metal, and with the scratch awl, mark about the edges. Then take a metal saw and cut to the outline. The edges are then filed true and the parts at C, 1, 2, 3, 4, are beveled as were the corners of the raised part. After the filing is done, place the ends of the metal in the vise and bend them at right angles to the rest of the handle, as shown at L 1 and 2. After all the four ends have been bent up, take a block of wood about 3-4″ square and 4″ long; place one end in the vise, and the metal for the handle over the other end and bend the sides of the handle down as at L 3. This can be done easily with the fingers, bringing the edges together as at M. The top of the handle, M, 1, is flat at present, but it seems to improve it to dome it a little, as at N. To do this, place the handle top side down on a piece of soft pine and place in the handle, as at R, a stick of wood about 5-8 of an inch square and 3″ long, with one end rounded a little, as at O, and with a few light blows from a mallet the required result is obtained. If anyone has facilities for soldering, a better piece of work is made of the problem if the corners at K 3 and M 2 are soldered. Experience should be gained on a less difficult problem before attempting the soldering of this one.

The bottom is next cut and filed to the required shape, and in this case is of 12 gauge metal, 2 3-4″ square, Q, Plate 1. The three parts forming the paper weight are now ready to be put together. For a problem of this nature, riveting seems to be a good method of fastening the different parts together. The holes for the rivets must first be drilled; their position is obtained from the working drawing, Plate I, Fig. A, and marked with a center punch. With

the hand drill and a No. 38 drill, drill the holes in the handle as shown at M, and drill one hole in each corner of the raised part of the weight as at K 5. The handle is first riveted to the raised part; the handle is held in place with one hand, and with the scratch awl in the other hand the holes at opposite sides of the handle are first located. These two holes, as at K 1 and 2, are then drilled, and the rivets which are made of 3-4″ oval head copper tacks are put in place. See March Workshop. After securing these two rivets, the two other holes are drilled and riveted. The top part of the weight is now placed over the bottom, Fig. K 6, which is made of 12 gauge metal, and one hole in each corner is located and drilled. After drilling these holes, a larger drill should be used to countersink the holes on the under side of the bottom to allow the rivets to spread a little when they are headed up. If this is done, the bottom may be filed flat when all the rivets are in place. After drilling and counter-sinking, one hole in each corner, the rivets are put in place and headed up. The other eight holes are now drilled and the rivets put in place and secured. The ends of the rivets are filed off level with the bottom and the paper weight is completed.

AUGUSTUS F. ROSE

Boston, Massachusetts

Earth is so kind that just tickle her

MAY

Now the bright star, day's harbinger
Comes dancing from the east and leads with her
The flowery May, who from her green lap throws
The yellow cowslip and the pale primrose. *Milton.*

1 ✠ ◔ **George Inness b. 1825.**
American painter of landscapes and light.

2 MON ◔ **Lionardo da Vinci d. 1519.**
Pupil of Verocchio. Florentine painter & sculptor, and well versed in anatomy, botany, astronomy, mathematics, engineering, and music; author and lover of nature.

On May 1st 1489, Michelangelo then 14 years of age was engaged for 3 years by Ghirlandajo.

3 TUE ◔

4 WED ◔ **Sir Thomas Lawrence b. 1761.**
English portrait painter.

Audubon b. 1780.
In his name we wage war on the destruction, thru vanity or wantonness, of his friends the birds.

5 THU ◔
For lo, the winter is past, the rain is over and gone; the flowers appear on the earth; the time of the singing of birds is come, and the voice of the turtle is heard in our land.
The Song of Songs.

6 FRI ◔

7 SAT ◕ **Robert Browning b. 1812.**
Said:

So if old Browning sat continually at the roots of human life and saw all things. *Burns Mines.*

8 ✠ ● Rejoice that man is hurled
From change to change unceasingly,
His soul's wings never furled. And also:

9 MON ●
That's the wise thrush; he sings each song twice over
Lest you should think he never could recapture
The first fine careless rapture.

10 TUE ●
Hark! hark! the lark at heaven's gate sings,
And Phoebus 'gins arise, His steeds to water at those springs
On chaliced flowers that lies; And winking Mary-buds begin
To ope their golden eyes.
Shakespeare.

11 WED ● **Léon Gérôme b. 1824.**
French historical genre painter. A leader in the "New-Greek" school.

12 THU ◕ **Dante Gabriel Rossetti b. 1829.**
Painter and poet. One of the founders of the Pre-Raphaelite Brotherhood.

Wreathe for the May! for happy Spring
To-day shall all her dewery bring.
Lowell.

13 FRI ◕
Once more the heavenly flower makes all things new.
Tennyson.

14 SAT ◕ **Thomas Gainsborough bapt. 1727.**
English painter of portraits and landscapes.

15 ✠ ◐ My soul went forth, and, mingling with the tree,
Danced in the leaves; or, floating in the cloud,
Saw its white double in the stream below. *Lowell.*

16 MON ◐

*On the 8th of May 1877 German excavators found the Hermes of Praxiteles, the only authenticated Greek original we have.

MAY

Across the noisy street I hear him careless throw
One warning utterance sweet; Then faint at first and low
The full notes closer grow; hark, what a torrent gush!
They pour, they overflow,— Sing on, sing on, O thrush.
Austin Dobson

17 TUE ◐ **Sandro Botticelli d. 1512.**
Florentine draftsman with pen and silverpoint, and painter. his Spring has the primitive grace, the freshness, the fluttering vivacity of the season itself, add to the artist and student a thousand qualities besides.

18 WED ◐ How gently rock you poplars high
Against the reach of primrose sky
With heaven's pole candles stored.
Jean Ingelow

19 THU ◐ It is the season now to go
About the country high & low,
Among the lilacs hand in hand
And two by two in fairy land
Stevenson

20 FRI ◐ When daisies white and violets blue
And lady-smocks all silver-white,
And cuckoo-buds of yellow hue
Do paint the meadows with delight.
Shakespeare

21 SAT ○ **Albert Durer b. 1471.**
German painter and engraver, designer of woodcuts and the reputed inventer of etching and of printing woodcuts in two colors.

22 ✠ ○ Robins and mocking-birds that all day long
Athwart straight sunshine weave cross-threads of song.
Lanier.

23 MON ○ Of song may all my dwelling be full, for sleep is not more sweet, nor sudden spring, nor flowers are more delicious to the bees, so dear to me are the Muses. Whom they look on in happy hour Circe hath never harmed with her enchanted potion.
Theocritus.

24 TUE ○

25 WED ○ **Ralph Waldo Emerson b. 1803.**
"Our great poetic seer," as Dr. Wm. T. Harris used to call him. If eyes were made for seeing. Then Beauty is its own excuse for being, said Emerson: also, Pictures must not be too picturesque.

26 THU ○

27 FRI ◑ **Dante Alighieri b. 1265.**
"The Divina Commedia may be said to have made the Italian language, which was before so rude and unformed that Dante himself hesitated to employ it on such a theme."

28 SAT ◑ The cock shall crow
In the morning gray.
The bugles blow
At the break of day;
The cock shall sing and the merry bugles ring.
And all the little brown birds sing upon the spray.
Stevenson.

29 ✠ ◑

30 MON ◑ **Memorial Day.** **King Arthur d. 542.** **Joan of Arc ✠ Martyred 1431**
Heroes of old, I humbly lay
The laurel on your graves again.
Whatever men have done, men may;
The deeds you wrought are not in vain.
Austin Dobson.

31 TUE ◑ Where tillage begins, other arts follow.
The farmers, therefore, are the founders of human civilization.
Daniel Webster

Stay, O May, do not stay! Another day!

HELPFUL REFERENCE MATERIAL

FOR JUNE WORK

Decorative Design in General

Theory and Practice of Design, Jackson; Lessons on Decorative Design, Jackson; Ornament and Its Application, Day; The Bases of Design, Crane; Handbook of Ornament, Meyer; The Gate Beautiful, Stimson; The Adaptation of Pattern to Material, Haney; Council Year-Book, 1907; Line and Form, Crane; The Principles of Design, Batchelder; A Theory of Pure Design, Ross; back numbers and current numbers of The International Studio,—always rich in reference material; all numbers of The School Arts Book for March, April, May and June.

Weaving

Hand-loom Weaving, Mattie Phipps Todd; Two School Bags, Soper, Book, May 1906.

Pen Drawing and Design for Printing

Pen Drawing, Maginnis; Letters and Lettering, F. C. Brown; The Practice of Typography, Title Pages, De Vinne; The Teaching of Lettering, H. H. Brown, Council Year-Book, 1906; The Essentials of Lettering, French and Meiklejohn.

Squared Units

Miss Perry, Book, December 1903; Miss Berry, Book, June 1904.

Stencilling

Mrs. Kettelle, Book, February 1902; Mrs. Sweeney, Book, June 1905; Ward, Book, June 1906; Garrabrant, Book, June 1908; Weed, Japanese Nature Stencils, Book, March 1908; Seegmiller, Applied Arts Drawing Books, V, p. 31; Stencilled Mats, Edson, Book, May 1906.

Block Printing

Marie S. Stillman, Book, June 1907; Cooper, Book, October 1908; Dow, Book, March 1909.

EDITORIAL

WERE you ever in Jerusalem at the feast of St. Helena, in Constantinople for a *Salamlik,* in Rome at the Feast of St. John, in Venice for the *Redentore,* or in Siena for *Il Palio?* If not, you have something yet to live for, something yet to learn about pageantry, something yet to enjoy in the way of feasts for the eye.

One Sunday morning Farwell and I were clinging to a column in the old church of St. Catherine of Siena, to get a view over the heads of the crowd, when suddenly a rattling drum-call sounded outside, and into the church marched a little dark red mare led by a groom in livery. The mare was to represent the ward of St. Catherine in a race that afternoon. She was accompanied by a standard-bearer, a knight in armor, a jockey, and four squires. The horse was very much alive; her bright eyes flashed, her ears danced, her nostrils quivered; she seemed to give alert attention to everything. How startling was the ring of her iron-shod hoofs upon the marble pavement! She stood silent before the priest during a solemn service. When he came forward and sprinkled her with holy water, blessing her in the name of the Trinity, the Holy Virgin, and St. Catherine, the well-bred little mare bowed gracefully, then turned, and with her brilliant troup, clanked out of church.

Late that afternoon the Campo of Siena, as Dante calls it, was a sight to behold. The venerable palaces, from whose sculptured casements the nobility of old watched jousts and burnings, were now hung with oriental rugs and draped with brilliant stuffs. The windows were crowded with citizens. The *Palazzo Pubblico* had blossomed at every door and balcony and even along the battlements. Ten thousand people filled the great semi-circle of seats in front of the palaces; ten thousand more stood in the central enclosure. Between the two crowds a cavalry kept clear the race track. It was a jolly multitude. The aristocracy were gay with ostrich plumes and bouquets; the

peasants, with brilliant clothing and flowers carried in the mouth. A pistol shot silenced everybody, and turned all eyes in one direction. A herald appeared on horseback. He was clad in chain mail, with velvet trappings of black and white, and carried a staff crowned with a she-wolf, the colors and sign of the city. A band of a dozen trumpeters, in uniforms of startling color, accompanied the herald. Their jacket-blouses were blue and green, slashed and puffed; thin white silk tights, and scarlet shoes fairly twinkled as they marched along, playing their stirring silver trumpets. A burst of applause would have greeted them in America, but here only expectant silence.

The city of Siena is divided into wards or *contradi,* each with what Indians would call a *totem.* The symbol of one ward is a goose; of another a snail, a caterpillar, a lion. Each ward has its flag and its symbolic colors; each elects annually a knight, and four squires, a standard-bearer, a drummer, a jockey and a groom, to represent the ward in this great celebration.

Following the trumpeters appeared the standard-bearer with a banner crowned with an image of the Virgin, to be given to the winner of *Il Palio.*

Behind the standard-bearer came a drummer and a sort of drum major performing wondrously with a flag, then the knight representing a ward, with all his attendants. The colors of this group were black, white and gold,—golden helmets with black and white plumes, golden breast-plates with black and white velvet capes, silk tights striped broadly up and down, or with one leg white and the other black, shoes black with gold and white ornaments.

Each *contrada* was represented by the same number of men, similarly grouped, but each group seemed more dazzlingly picturesque than its predecessor. The second was liveried in blue and white with gold; the third in crimson, blue and silver;

the fourth in yellow, green and gold; the fifth in orange, green and white; the next in red, white and black; then yellow, blue and silver; orange, white and blue. The ninth, the men from St. Catherine's ward, whom we saw blessed in her church, wore red, white and green; and last came men in yellow, red and blue.

The "drum major" of each group tried to outdo all others in his evolutions. Instead of batons, these men carried flags about five feet square with a rather short staff. These flags they manipulated with magic skill. They were waved, twirled, snapped, furled and unfurled, pitched into the air and caught by the staff, pitched so that they turned somersaults in the air and came down right end up or wrong end up, at will; they were swept around the body like a running flame, leaped over, danced with, and kissed, and all in perfect time to martial music.

After the representatives of the *contradi,* came a car drawn by four horses in gorgeous trappings, containing two big banners and the flags of the non-competing *contradi* (for not all the wards can afford to compete every year). When the procession reached the gates of the *Palazzo Pubblico* the horses passed thru them, out of sight; but the standard-bearers and the squires took seats upon the great white grand-stand, which had been erected in front of the Palace, where they made a splendid bouquet of rainbow colors.

Presently the signal sounded, the great gates of the Palace opened and ten horses rushed out and scampered to the starting-place. A rope had been stretched from near the judges' stand across the course to a point opposite, and some twenty feet behind it was another rope parallel and extending almost across. Thru the opening thus left at the end of the second rope, the horses entered this inclosure, one by one, according to a list in the hands of the starter. The horses first in were so excited that their riders could scarcely hold them. In fact, the day

before, one horse had tried to jump the rope, and others had followed, turning somersaults and throwing their riders. But to-day the rope fell at just the right instant and the horses leaped forward at full speed. Round the course they flew. Once round, and one man had disappeared; twice, and three horses ran riderless but kept the course. As they neared the turning point at the left of the Palace, one maddened horse dashed thru the line of guarding soldiers and ran into a crowded street. The others tore onward towards the goal. The crowd shouted, jumped, yelled. In a moment more it was all over and our horse had won—the one we saw blessed—St. Catherine's! Excited men jumped the rails and surrounded horse and rider; patted them, kissed them, laughed and cried over them, and conducted them triumphantly to the judges' stand to receive the banner.

The race was a great success! The winners made their way to St. Catherine's church to give thanks for the victory, a shouting and cheering crowd behind them. We started towards our hotel, but fell in with another lively company of the rejoicing victors who were marching with drums and banners, singing on their way to the great church of St. Domenico. We went with them. Into the church they swarmed with all their hullabaloo. The few people at prayer were frightened from their knees and ran behind the piers for protection. The crowd rushed to the shrine of St. Catherine and bowed before her image. Banners waved, flowers were thrown at the Saint and poured into the arms of her attendant priest. "Vi-va-San-ta-Ca-ta-ri-na! Vi-va-San-ta-Ca-ta-ri-na!" they shouted again and again, until the old church rang with echoing responses.

That night big white geese adorned the walls of the houses in St. Catherine's ward, each bearing a torch. Everybody was feasting, and singing and dancing, and the same calm stars which looked thru the soft violet sky six hundred years ago upon

St. Catherine herself, watched now above her worshippers who spent the July night in the open air.*

That night I began to think more seriously upon the problem of beautifying life in America, and that night I designed nearly all the flags described in The School Arts Book, February, 1907, which have added so much to the significance of the days in one home at least. I know now that about that time (1898) hundreds of other Americans must have been thinking of the same problem, and hundreds must have commenced to do something about solving it; for in these last twelve years what an interest has developed thruout our whole land, in a more beautiful America and a more beautiful American life. Let us all promote that interest; let us all try to realize our ideals.

How the imagination is fired by the descriptions in Froissart and Sir Thomas Malory of the tournaments of chivalry! The royal pavilions, the splendid ladies, the brave knights upon their sumptuously adorned chargers, their banners, their rich emblazonry—Did you ever stop to think how the lists would have looked with "Use Hangman's Suspenders," and "Drink the Devil's Own Whiskey" painted in letters ten feet high along their sides; and how the knights would have appeared with only "No. 7" or "No. 123" painted in white on their shields of black, large enough to be seen a half mile? Suppose the retainers of Sir John Chandos had distinguished themselves upon arrival by yelling in unison:

Rah! Rah! Rah!
Boom the boss!
Rah! Rah! Boom-a-rah!
John Chandos!

Oh, how raw we are! If the favored few in the bloody days of the middle ages could play so beautifully, why cannot the

*A portion of this description, written in Siena at the time, was published in Primary Education, November, 1901, in an article entitled, "An Italian Thanksgiving."

favored many in the blessed days of peace play as handsomely? Why should not a school be distinguished, not by its noise, but by its courtesy, by its becoming costume, by its handsome symbolic banners and badges.

The Totem, suggested as a problem last month, and completed this month by thousands of pupils, (let us hope), ought to prove to be a living seed, taking root everywhere, and bringing forth, in due time, a harvest of beauty. Coats of arms, in these days, and in our country, are an affectation. They belong to those whose ancestry won them, and whose duty it is to honor them, and to add to their lustre; but every family in America may have its house mark, every school its banner, every class its badge, every club its sign, all beautiful and significant, all adding to the charm of daily life. Every time I see E. A. Batchelder's happy little rabbit, I smile, and see before my mind's eye my genial and talented friend. Every time I see Dr. Haney's little hippocampus cleverly sketched after his signature, I feel that I have been honored with a sort of "Witness-my-hand-and-seal" benediction. "People fancy they hate poetry," said Emerson," but they are all poets and mystics. . . . Some stars, lilies, leopards, a crescent, a lion, an eagle, or other figure, which came into credit, God only knows how, on an old rag of bunting, blowing in the wind, on a fort at the ends of the earth, will make the blood tingle under the rudest or the most conventional exterior." Let us keep our Q Avenues, and West 119th Streets in our cities, along with our 1-7-ring-double-3's, for convenience, if we must, and our Class of 1910's, but let us also be at home to our friends at "Redmark," and have the vermilion stamp on our stationery and bear always in some unobtrusive form our mystic symbol. As the best of the Greek literature is a part of ours to-day, and the best of Roman law is a part of our code; as the best psalms and prayers of the early church are a part of our liturgies, and

the best art of the Renaissance is echoed from the walls of our houses and schoolrooms; so should the charm of the symbol and the splendor of medieval pageantry, enrich and glorify our daily life.

¶ The cover stamp this month is from a wrought iron screen in the National Museum, Florence, probably of French workmanship of the fourteenth century. The plan of the design is the whirl, which was illustrated, from the Japanese, on the September cover; but in that case with three elements only: here there are six, and most ingeniously interrelated. The geometric plan is the circle, within which are inscribed two equilateral triangles, the points forming a hexagon. Within this "Seal of Solomon" a smaller circle is inscribed, and divided by radii into six equal

parts. Upon this geometric basis, the free play of line is charming. How consistent the whole is! The whirl influences every element of the design, even the arms of the central part. Every space is made brilliant with cusps, and the whole pattern seems composed of irregular sharp-pointed three-petaled flowers, with appropriate lanceolate leaves, when, in reality, it is made of six four-parted, butter-cup-leaf forms.

Plate I.

¶ The Frontispiece, by Mr. James Hall, is from a water color drawing of the iris, one of the most regal of flowers. It is one of the plates in the new packet, Spring Nature Drawing, published by The Davis Press.

The drawing on the Bulletin is from a French pamphlet advertising type. It merits such epithets as "clever," "decorative," "amusing." A rough sketch it is, but how well informed the artist was! Such things can hardly be copied successfully; they have to be done "off hand."

The tail pieces are from Japanese stencils imported and sold by Atkinson, Mentzer, and Grover. They evince the facility of Japanese artists in reducing plant forms to pattern without losing entirely that fine freedom, that apparent nonchalance, so characteristic of the living thing.

The plate on page 995 shows the work done by the freshman class in the High School, Brattleboro, Vt., under the direction

of Miss Florence I. Goodenough. It offers suggestion for conventional insect and plant forms such as are called for in the month's outline. This is certainly good work for beginners.

¶ It gives me unusual pleasure to be able to present to the readers of The School Arts Book some examples of work by

Plate II.

pupils of Miss Maud M. Mason of New York City. Plate I gives four adaptations of plant forms; Plate II, six designs suggested by the forms of birds. Plate III gives four borders, three of which have motives from the plant realm. The fourth was suggested by a fleet of yachts. Plate IV contains three designs for the decoration of porcelain with plant motives. These designs, as a whole, are of marked originality, embody perfectly the principles of good design, are boldly handled, and in the originals beautiful in color. The forms and spaces are so well related to one another that the designs have a certain inevitable

quality in their composition. One feels that every spot is in the right place and that it could not be changed without disarranging the whole order. These will furnish not only suggestion for other designs but models in handling for pupils to imitate. Miss Mason is to teach design at the Chautauqua School of Arts and Crafts this summer.

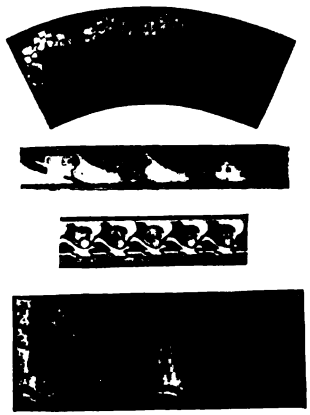


Plate III.

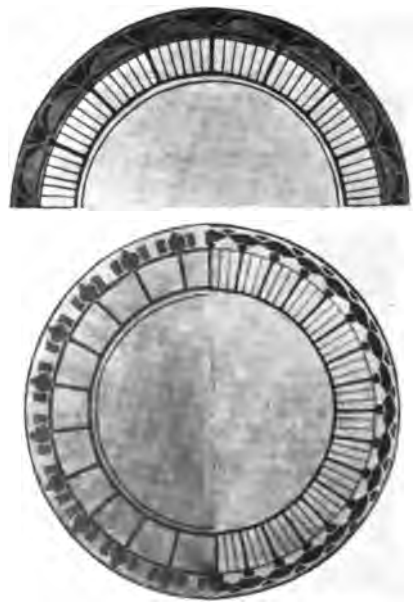


Plate IV.

¶ May 18th, the anniversary of the opening of the First Hague Conference, is to be observed as Peace Day. On that day, not only should our own flag be flung to the breeze, but also the banner of Universal Peace, described in The School Arts Book, February, 1907, p. 476. If the children cannot make a large banner in time for the celebration this year, let them make miniature flags, and wear them as badges. They may be made

of paper, with crayon or water color. Full information regarding Peace Day programs can be obtained from the Secretary of the School Peace League, Mrs. Fanny Fern Andrews, 405 Marlborough Street, Boston.

¶ How about a summer school? Why not try Chautauqua? The attractions Twostack Hall and the Colonnade Studios on Old Chestnut Hill have to offer, are unsurpassed. Then think of what Chautauqua means besides!

CORRESPONDENCE

My dear Mr. Bailey: Durham, North Carolina

By the same mail, I am sending you the drawings which you asked me for, illustrating what we call "The Border Land of Youth."

THE BORDER LAND OF YOUTH

The second grade youngsters said that: "A 'border' is somebody that lives with you;" but the teacher had to tell him that she wanted to know something about the kind of border that he had at home in his sitting room all around the walls up close to the ceiling.

"Oh, yes;" he understood, and he remembered counting all the flowers up there. He told her of many other things that had borders about them. His reading book at school with the story of "The Three Bears" and his big book at home that Santa Claus had left outside his stocking because there was no room for it inside; they had borders to make them pretty. "Sister had a blue dress once. She wore it on a picnic and she tore it. That had borders all around the bottom and the sleeves and on her shoulders too."

"I wonder if the little flowers in the border of sister's dress were all alike or did you see many, many different kinds like those your grandmother had in her old-fashioned garden all along the path to the spring?"

"Oh, they were all alike," the little boy said, "first one and then another, right in a row and all the same size."

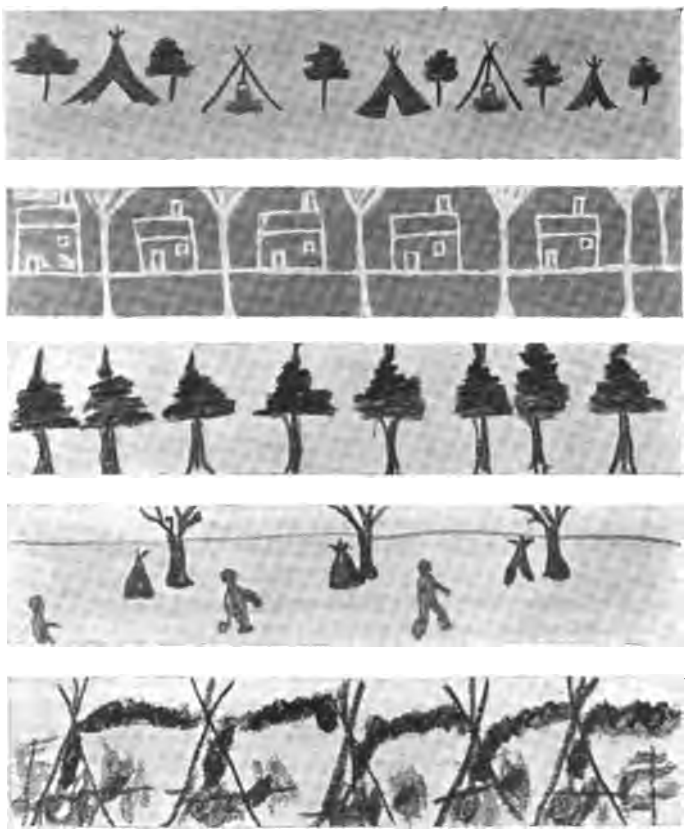
"I wonder how many of these little people would like to make a border on their 'Hiawatha' books?"

"I knew you would like to do it, and we will have some beautiful ones; you just wait and see. To-day is such a beautiful day and there are so many beautiful things for us to think about that I am sure everybody is very happy and will do well. Now let's see what we do first. I can see the color in everybody's eyes because everybody is looking right at me and listening. This little slip of paper on your desk is exactly the size of the border you will have on your book. See how it fits across up near the top of this pretty brown paper which we will use for the book cover. It is just long enough, and I think that it looks all right. Don't you?"

"We will make several borders, each one telling some part of the story of the little Indian boy whose name was 'Hiawatha.' In our picture we want to show more sky than we do ground, so let's draw a line to tell how much sky we will have. Then right in the center show me the great big pine tree that grew so close to Hiawatha's wigwam"

(While they are at work, please tell me, can you imagine a busier, happier set of little people than I saw before me that very moment?)

"Near the edge of the paper toward your right hand, and again toward your left, I believe we can see that same stately pine. Draw it.

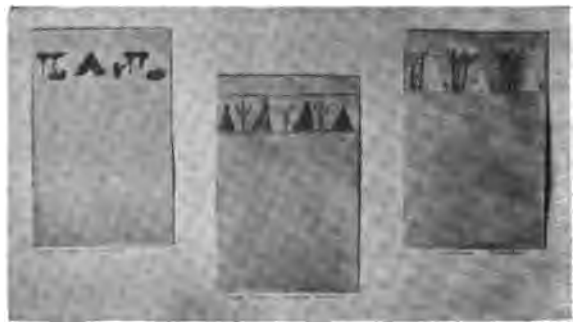


"Now over toward your right hand, just half way from the middle tree to the end tree, we will make the same old tree again; and on the left side too."

As absorbingly as before they were at work.

"Then beneath the trees, four times, we will paint with pretty colors the wigwam of Nokomis; and perhaps 'Hiawatha' himself, for we know that

'At the door on summer evenings
Sat the little Hiawatha;
Heard the whispering of the pine trees,
Heard the lapping of the waters,
Sounds of music, sounds of wonder.'



"Now our borders are finished and we will put them all up where every one may enjoy them. I see so many beautiful ones. Those that I like best are spaced evenly and they tell me one part of the story over and over again. Before our lesson to-morrow we are all going to think about the part of the story we would like best to draw and then our exhibit will show many parts of the story. We will be ready then to make some very beautiful borders on our books and I am quite sure they will look very much like real Indian books."

What makes one happier than to see these little people all at work to create something beautiful which they have imagined in their own happy thoughts of "Hiawatha," "Robinson Crusoe," "Cinderella," or "The Three Bears."

You will have all the joy that one could wish, in the happiness of seeing their pleasure, if you will but do your share to lead them, slowly, at first, to grasp the idea that you want them to think of some particular part of the story, and then to tell it to you over and over again and in just the same way each time. It is wonderful to see those dauntless little creators; for as soon as they

understand how to do what you ask them, you need only say: "Borders," and then listen while they eagerly tell you with crayon or water color all the stories they know.

Lydia A. Bancroft,
Supervisor of Drawing.

My dear Mr. Bailey: Middleboro, Mass.

Abstract design or designs for imaginary things which are never applied have seemed so meaningless to the younger children that last year we tried to give a problem in each grade which called for a design for some special thing, and which could actually be applied to the object by the children. This led the children to see more clearly the limitations and possibilities of the problem, and added greatly to the interest. It also stimulated them to work at home and to notice the good and bad qualities in designs in similar objects seen at home and in the shops.

In Grade 1 the designs had to be very simple, merely lines and spots suggested by the arrangement of petals, stems and leaves in the top and side views of flowers and plants.

The problem was the border for a towel or handkerchief to be made in one color. The designs were first drawn upon tracing paper with colored crayon and the best ones selected to be painted on the real towels. Narrow linen crash was used, the ends fringed about two inches deep. Then a crease was folded by a thread for the bottom and top of the border, also where the center of the flower came or any other important point. The first and second units were then painted directly upon the crash with "easy dye." To obtain equal spacing a piece of paper was cut just the length of the distance between the two units and used as a marker. All the centers were put in first, then all the petals, stems and leaves, and border lines were painted over the creases.

Grade 2 made doilies in the same way, either circular or scalloped. Equal spacing was obtained by folding on the vertical and horizontal diameters, and once between, and with the circle marker, equal distances from the center were obtained for the centers of flowers, ends of stems, and other points.

Grade 3 was given a choice between two problems. The first was a border for paper napkins, using flower or animal forms as units, either a single animal combined with some appropriate object, or a balanced or symmetrical arrangement. The corner had to be arranged first and then the units spaced equally between. Colored crayon or paint and crepe paper napkins were used.

The second problem was for a border of animals or other units for a wooden bowl. The smallest size chopping tray, an open, flat bowl, was chosen, and

the border placed inside around the edge. A light and dark tone of one color was used and painted with "easy dye" which goes on the wood so much more smoothly than water color. Flower pot saucers might be decorated in the same way for pin or ash trays.

Grade 4. Here the children had been drawing fishes from life, and studying Japanese drawings of fishes, so the problem chosen was a fish plate. A circle the size of the plate was cut and circles were drawn upon it near the outer and inner edge of the rim and at the bottom of the curve between rim and bottom of the plate. The paper plate was then folded into six or eight equal parts and in one section the unit was drawn—a fish with stone or shell and floating sea-weed, or lines representing ripples,—trying to keep the lines and creases rhythmical. The plate was then folded near the head of the fish and the unit transferred to the next section, making a symmetrical or balanced unit. Circles were then drawn on tracing paper, the sections marked, and the unit traced,—each section. The tracing was colored with crayon or paint. The best six or eight designs were chosen, painted on the china plates and fired.

The plate was first rubbed with turpentine and marked off in similar sections on the edge. A tracing is made of one section, and this is placed over a section of the plate and fastened with clips, a piece of carbon paper was slipped under this and the unit traced. This is repeated in each section. The band of shells around the bottom of the rim has to be drawn directly, the curve making tracing impossible. The design is painted with a thin, flat wash of mineral paint and outlined with a darker color. Common crockery plates may be used, but the results after firing are not as pleasing as the china plates.

It is a great deal more work and much harder for the teacher to have so much of the design applied for nearly all of it has to be done outside of school as it takes too long to do it in drawing time. The added interest and enthusiasm, however, which it arouses in the children more than pays for the extra work.

Mary L. Cook,
Supervisor of Drawing.

My dear Mr. Bailey: Greenville, Mich.

I enclose herewith the description of a Poster lesson.

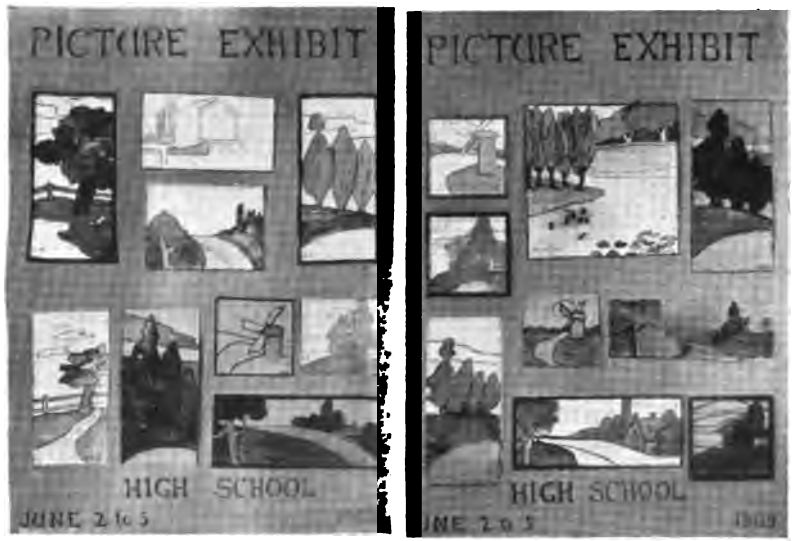
Design for some practical purpose appeals strongly in a school where there is no manual training.

With best wishes, and a word of thanks for The School Arts Book,

I am very sincerely,

June 29, 1909 Alice Fuller.

The need arose for attractive advertising matter for a school entertainment. Posters must be large and such work could not be handled on school desks, nor in a short class hour. I thought of a page of decorative black and white landscapes, which Ruth Halleck had given us, in the Applied Arts Book. Going into a seventh grade room of fifty pupils one pleasant May morning,



I told them that the chance was waiting for each one of them to help along. At the end of the five minute explanation they were all at work with a quiet, busy enthusiasm. Materials: nine by twelve water color paper, rulers, pencils, and three-color paint boxes. Each one to choose his own little black and white picture to work from—each one to plan his own color scheme with the restriction that it must be flat color without light and shade. All outlines to be worked over with black, as well as the margin of the square or oblong.

At the end of the period, perhaps two-thirds of the work was finished. The regular teacher suggested that those who wished might come in early in the afternoon and complete their work.

It remained then to group and mount these small drawings on the regular twenty-two by twenty-eight gray mounting boards with an idea of bringing the various sizes and the varied color schemes into harmony.

When the cards were placed in the show windows of the down town stores it was very interesting to see those boys and girls stop and hunt out their own work and that of their class-mates to show to some friend or relative.

One girl in this room has a natural ability to see and to translate her seeing into line or color. The others are so proud of her that they borrow her drawings and carry them to the Superintendent with, "Please look at R's drawing; didn't she do well to-day?"

This spirit of working together to a common end, and the fact that every piece of work from this particular lesson went into the completed whole, made them seem more than "mere" posters.

Mr. Henry Turner Bailey, Davenport, Iowa.

Dear Sir:

The pupils of the eighth grade in the Davenport Schools have been making pennants this term, and since we have not seen any published in The School Arts Book, our drawing teacher thought it would be nice for us to send you one and tell you how we made it.

After we had drawn our pennants on large paper and estimated how much material would be required, our teacher bought the felt for us and each pupil made his own pennant. Every one cut out his own letters from the paper pattern and basted them on at school. This had to be done very carefully so as to get the slant and proportion right.

Then we took them home and stitched them on the sewing machine. Our teacher bought some satin ribbon, and each pupil received a piece to sew across the end of the pennants so that they could be fastened to canes, if we wished.

Some pupils had small pieces of felt left after they had cut out the letters and out of these they made arm-bands and small pennants.

Each class has its own colors. The A class colors are Rose, symbolizing courage, and Gray, modesty. The B class colors are Wistaria, symbolizing the kingly virtues, and White, purity.

The pennants that we are sending you are samples of those that we made. Our pennants cost each of us about thirteen cents.

Yours respectfully,

The Eighth Grade of the Taylor School.

My dear Mr. Bailey: Irvington, N. J.

Can you use the inclosed?

OLD GLORY, A DRAWING LESSON AND SOME FUN

Two "drawing" lessons that the children always enjoy are these I am going to describe. They follow the season of hard work on object drawing with its problems of foreshortening, bi-symmetry and free-arm sketching. The children know what you mean now when you call for light sketch lines or blacking in lines or whatever you have been calling them, they are accustomed to making large free movements, and they are tired of ellipses, so this comes as a welcome change and seems comparatively easy.

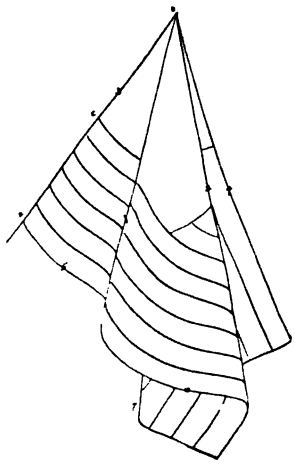
You will need a large flag. Stand the stick in the chalk tray and fasten it up against the wall, arranging the folds as shown.

With sweeping free-arm movements, sketch the edges in the order given. It is better to hold the paper up in a vertical position for these light sketch lines.

1. Draw 1 and 2.
2. Draw direction of stick.
3. Draw 4 and 5, 6 and 7.
4. Locate c halfway between a and b, and divide ac into six equal parts.

5. Draw lines parallel to 5. 5 will probably be a double curve.

6. Color these stripes with crayon or water color. These being colored, there will be no confusion of lines when the other stripes are drawn.



7. Draw lines parallel to 6. 6 will always be a double curve. Be careful to keep the stripes all the same width. Color these.

8. Draw remaining stripes, always beginning at side edge of flag and drawing lines parallel to it. Color.

9. Draw the stars quite large and with very light pencil lines. Color the blue field.

10. Color the stick, adding shadows on one side of it. Paint with black crayon or pencil the shadows seen behind folds.

That is the first lesson. It seems very formal, and leaves little liberty to the children, for they do it step by step as they are directed. But the results are so good everybody is proud of himself, and having done it, he understands how he did it.

The next lesson is real fun. There are lots of flags. Everybody has one if he wants it. And everybody lets it hang in folds to suit himself. Then he shows you what he can do when he has a chance to do it in his way—which may be very much like your way, but once in a while will be better. When that happens tho, you have the satisfaction of knowing that you gave him a start.

Maud M. Hayman.

THE ARTS LIBRARY

BOOK REVIEWS

The Practice of Oil Painting and Drawing. By Solomon J. Solomon, R. A. 278 pp. 5 x 8. Fifty-eight illustrations. J. B. Lippincott Co. $1.75 net.

"Principally intended for the use of art students," this book contains two elements, at least, of value to art teachers: first, the exposition of "a method by which the round object can be reduced to the flat"; and second, the collection of plates. The method is, in a word, the drawing of the spaces left by the silhouette of the object against its background,—a method long recognized as of great value as a checking system, but not hitherto given first place. The plates are from admirable drawings of the human figure and its details, of casts, and a still-life subject, many of them ideal for high school students to copy and to emulate. These excellent plates are supplemented by fine reproductions in halftone from famous old masterpieces in the National Gallery, London, which reveal "The Methods of the Masters." This part of the book is invaluable to students who are to make serious copies of best work, for discipline in technique. A "facet model," described in Chapter VI, a sort of gambrel-roofed pyramid (square or hexagonal) and truncated, might be constructed in any manual training shop. Such a model is to be highly commended as a device for testing a pupil's power to see and to record values. There are good suggestions in the paragraphs on Composition. "Always keep your sketch compositions,—they will be studies and not pictures, if within the four corners of their frame they are ill-balanced. . . A final judgment on any work should be invariably formed on the good, and not on the bad."

The Potter's Craft. By Charles F. Binns. 172 pp. 5 x 7 1-2. Forty-two illustrations and plates. D. Van Nostrand Co. $2 net.

Of convenient size, clearly written, adequately illustrated, based on years of experience, this book is worth its price many times over to those who are interested in the venerable and indispensable art of pottery. The spirit in which the book is written is to be commended to all craftsmen. In Mr. Binn's world there is room for everybody who will do his best. "The true artist, be he potter or painter, works primarily for his own satisfaction. . . . If the worker aim to draw any expression of opinion from the untrained observer it should be in the nature of a remark on how easy the work looks. True art will always conceal effort. . . If the artist be capable of criticizing his own work he is in a position to command attention, but he must either

discipline himself or be disciplined by others, which after all is the way of the world at large." The book gives directions and receipts for every important detail of the craft, and closes with a chapter on Clay-working for Children. It lives up to its motto, chosen from Ruskin, "The author has something to say which he perceives to be true and useful. . and he says it clearly."

The American Art Annual. By Florence N. Levy, Editor. 284 pp. 6 x 9. Eight full-page illustrations. $5.

This "comprehensive reference book on art matters in the United States," gives the sales of paintings for 1907-1909, the art books published during those years, the art magazines, a list of newspapers interested in art, the text of the Tariff on Art, obituaries, and directories of painters, sculptors, illustrators, architects, and art dealers. The special article in this volume is devoted to the life and achievements of Charles Follen McKim, "as exemplifying the general trend in this country toward giving art its rightful place in the life of the people." The Art Annual, ably edited, is unique: without it, no reference library is complete.

Handbook of English Composition. By Luella Clay Carson. 276 pp. 4 x 6. 72 cents.

Every supervisor and teacher of the arts sooner or later has to write reports, addresses, and other things for publication. Here is a comprehensive and authoritative little volume, perfectly printed by the Merrymount Press of Boston, handsomely bound in dark green leather and gold, which will answer all questions on the writing of English, and besides will add to the beauty of the desk! The book includes blank leaves for the addition of notes, a section on correcting proof, a bibliography, and a complete index. This is its third edition. Ten years of use of previous editions in the University of Oregon have established its value. It is a masterpiece in school-book making.

RECENT PUBLICATIONS

OLD BALLADS IN PROSE. By Eva March Tappan, with four illustrations and a cover design in line by Fanny Y. Cary. Sixteen of the famous English ballads,—Robin Hood, Willie Wallace, The King and the Miller of Mansfield, and the rest,—retold in lively fashion for children and the many others who "do not like poetry," but who ought to know this part of the literary heritage of the race. Houghton, Mifflin Co. 40 cents.

THE STUDIO YEAR BOOK OF DECORATIVE ART, 1910. A complete and comprehensive review of the most important work in decorative and applied art, produced during the past year by the leading architects, designers, and craftsmen. Over four hundred illustrations, many of which are in colors. John Lane Company. $3 net. Postage, 35 cents.

THE PANAMA CANAL. By Alfred B. Hall and Clarence L. Chester, with 132 illustrations and 9 maps. This "tells the whole story," from Columbus and Balboa to De Lesseps and Roosevelt, tells it well, both in English, and in the universal language of the picture. It recounts one of the greatest labors of the real Hercules! Newson & Co. 60 cents net.

THE ART OF CRAYOGRAPHING. Published by the American Crayon Company. This little pamphlet is mentioned here because it contains twelve illustrations in gray, and four full-page plates in color, of real value to teachers as examples of technique in pencil and colored crayon. The text gives suggestions in method. It is primarily an advertising pamphlet, but of such unusual character that "Price 25 cents" has been printed upon it. Probably any subscriber to The School Arts Book could secure a copy of the pamphlet free by sending a quarter to Sandusky, Ohio, or to Waltham, Mass., for a sample box of Crayograph.

ART AND PROGRESS. The April number contains a beautifully illustrated article on the National Gallery of Art by James Henry Moser.

MONITEUR DU DESSIN for March contains a most interesting suggestion of what historic art is going to be under the new program. It is an illustrated article by M. F. Froment-Jartoux, Professeur diplômé de l'Etat, dealing with the animal form in decoration.

THE PRACTICAL TEACHER, of England, has blossomed. The April number contains two plates in full color. The constructive work in paper, by Agnes E. Farman, is about the best in proportion and form that has yet appeared in an educational journal.

AMERICAN PHOTOGRAPHY for April contains a sensible and well illustrated article on tone composition, by Elisa Anne Sargent.

AN ART-CRAFT INDEX TO THE APRIL MAGAZINES

PERTINENT ARTICLES

A May-Day Festival, Florence Villiers Brown, Ladies' Home Journal, p. 36.
An Early Italian Painter, Fra Angelico, W. E. Sparkes, Practical Teacher, p. 583.
Art of Mr. Albert Goodwin, R. W. S., The, A. Lys Baldry, International Studio, p. 85.
Belt Buckles (concluded), William Whitney Lewis, Palette and Bench, p. 174.
Chip-carving, Idelette Carpenter, Palette and Bench, p. 177.
Colour Work in School, Drawing with Crayons, II, J. Young, Practical Teacher, p. 662.
Constructive Work in Paper, A Doll's House, Agnes E. Farman, Practical Teacher, p. 512.
Contemporary Japanese Painting, Sei-Ichi Taki, International Studio, p. 97.
Copper Work as a Recent Development in the Manual Arts, Augustus F. Rose, Manual Training Magazine, p. 303,
Course in China Decoration, A, Jetta Ehlers, Keramic Studio, p. 250.
Design in the Manual Training High School, Robert A. Kissack, Manual Training Magazine, p. 333.
Docentry: A New Profession, Mary Bronson Hartt, Outlook, p. 701.
Elementary Schools as a Factor in Industrial Education, Henry Turner Bailey, Manual Training Magazine, p. 297.
Hermitage, The, Clara Wilson, Palette and Bench, p. 164.
Historic Types of Architecture, VIII, Greek Architecture—The Parthenon, Lewis F. Pilcher, Chautauquan, p. 213
History Lesson and Drawing, The, Armour, Part II, W. H. Elgar, Practical Teacher, p. 588.
James Earle Fraser, Sculptor, Elizabeth Anna Semple, Century, p. 929.
Japanese Stencils, Catharine E. Suplee, Palette and Bench, p. 180.
Machine Drawing for Evening Classes, Arthur B. Babbitt, Manual Training Magazine, p. 319.
Magazine and Book Illustration, Corwin Knapp Linson, Palette and Bench, p. 166.
Metal Work—with Inexpensive Equipment, Arthur F. Payne, Manual Training Magazine, p. 336.
Monotypes, Christian Brinton, Scribner's, p. 509.
Nattier, The Rococo Portrait Painter, James William Pattison, House Beautiful, p. 130.
Needlecraft for Primary and Secondary Schools, II, Ann Macbeth and Margaret Swanson. Practical Teacher, p. 593.
Old American Silver and Its Makers, Circle, p. 234.
Old Aquatints at Walker's Gallery, International Studio, p. 126.
Paintings of Eduard J. Steichen, The, A. E. Gallatin, International Studio, p. xl.
Portrait Painting, an interview with Louis Betts, Palette and Bench, p. 158.
Portraits of Carroll Beckwith, The, Robert J. Wickenden, Scribner's, p. 449.
Possibilities of Bookbinding as a Profession, Craftsman, p. 106.
Practical Aspects of the Great French Styles, Virginia Robie, House Beautiful, p. 137.
Reading Journey Through Egypt, A, VIII, The First Cataract; Aswan and Philae, James Henry Breasted, Chautauquan, p. 184.
Reminiscences of an American Painter, Elihu Vedder, World's Work, p. 12815.
Revival of Line Drawings in British Advertising, The, Charles E. Dawson, Printing Art p. 113.
St. Louis School Buildings, Cara Reese, Good Housekeeping, p. 485.
Scientific Color in Practical Printing, E. C. Andrews, The Inland Printer, p. 47.

Some Notable Swedish Etchers, George Brochner, International Studio, p. 114.
Some Pre-Raphaelite Reminiscences, Ford Madox Hueffer, Harper's, p. 762.
Tapestry, I, The History of Tapestry, Grace Wickham Curran, Palette and Bench, p. 171.
Visiting Manual Training Schools in Europe, IV, Manchester and Leeds, Charles A. Bennett, Manual Training Magazine, p. 345.
What the Spanish School Stands For, Arthur Fairbanks, Ladies' Home Journal, p. 14.
William Merrill Chase: An American Master, Katharine Metcalf Roof, Craftsman, p. 33.
Windows for Plymouth Church, Brooklyn, The, Designed by Frederick S. Lamb, International Studio, p. xliv.

ILLUSTRATORS

Alexander, John W., Palette and Bench, p. 163.
Ashley, Clifford W., Century, p. 871.
Aus, Carol, St. Nicholas, p. 489.
Ayer, Mary True, St. Nicholas, p. 531.
Becher, Arthur, St. Nicholas, pp. 533, 536.
Beckwith, Carroll, Scribner's, pp. 449-460.
Benda, Wladyslaw T., Outlook, pp. 709-715.
Betts, Louis, Palette and Bench, supplement, pp. 154-160.
Birch, Reginald, St. Nicholas, pp. 490, 491, 519, 523.
Blashfield, Edwin H., Century, pp. 899-902; Craftsman, p. 71
Boberg, Anna, International Studio, p. 147.
Boberg, Ferdinand, International Studio, pp. 122-125.
Bracker, M. Leone, Ladies' Home Journal, p. 27.
Brehm, Worth, Harper's, pp. 789, 792.
Browne, Katharine M., St. Nicholas, p. 555.
Brush, George deForest, International Studio, p. 159.
Burd, Clara M., Circle, cover.
Castaigne, Andre, McClure's, p. 643.
Chase, William M., Craftsman, frontispiece, pp. 35-42.
Cole, Timothy, Century, p. 817.
Cootes, F. Graham, Scribner's, pp. 480-484.
Correggio, Ladies' Home Journal, p. 15.
Covey, Arthur, American Magazine, cover.
Cowen, Percy, St. Nicholas, pp. 485, 487.
Cox, Palmer, St. Nicholas, pp. 540-543.
Craig, Frank, Scribner's, p. 477.
Crane, Walter, Printing Art, p. 115.
Crawford, E. Stetson, Scribner's, pp. 413-420.
Crosby, R. M., American Magazine, pp. 745-753.
Curtis, E., St. Nicholas, cover.
Daniels, E. E., Keramic Studio, supplement.
Davis, Mary Louise, Keramic Studio, pp. 252-266.
Desch, Frank H., Circle, pp. 205, 206.
Dickey, Robert L., Century, p. 958.
Dillon, Corinne Boyd, Ladies' Home Journal, pp. 28, 29.
Donaldson, Alice Willits, Keramic Studio, pp. 253, 268.
Edwards, Robert, Circle, pp. 214, 215; McClure's, frontispiece, pp. 645-649.

Eisley, Arthur J , St. Nicholas, frontispiece, p. 508.
Enwright, W. J., American Magazine, pp. 849-857; Century, pp. 827-832.
Everett, Walter H., Ladies' Home Journal, p. 41.
Flagg, James Montgomery, American Magazine, pp. 754, 756, 758, 793, 800.
Fogarty, Thomas, McClure's, pp. 629-635.
Fra Angelico, Practical Teacher, p. 583.
Fraser, James Earle, Century, pp. 929-932.
Gates, Ethel E., Keramic Studio, p. 255.
Gericault, Century, p. 817.
Gibson, W. Hamilton, Ladies' Home Journal, cover.
Goodwin, Albert, R. W. S., International Studio, frontispiece, pp. 85-97.
Grainger, M. E., St. Nicholas, pp. 554.
Green, Elizabeth Shippen, Harper's, pp. 770, 774.
Griffith, L. O., Inland Printer, pp. 44, 45, 46, 72.
Guerin, Jules, Century, frontispiece, pp. 805, 811.
Hale, Walter, Harper's, pp. 744-753.
Hallock, Ruth M., St. Nicholas, pp. 493, 495.
Hambidge, Jay, Century, pp. 852-860; St. Nicholas, pp. 545, 546.
Harlow, F. N., Keramic Studio, p. 267.
Harper, R. Ford, Good Housekeeping, pp. 422-427.
Hatherell, W., R. I., Harper's, pp. 702, 706.
Heming, Arthur, Outlook, pp. 692-697.
Hitchcock, Lucius W., Harper's, pp. 732, 742.
Howitt, John Newton, Ladies' Home Journal, p. 7.
Johnson, P. D., Ladies' Home Journal, p. 17.
Keller, Arthur I., Century, p. 845; Ladies' Home Journal, p. 19.
Kemble, E. W., Century, pp. 936-948.
Kendall, William Sergeant, Century, p. 849.
Kerr, George F., Good Housekeeping, pp. 483, 484.
King, W. B., Ladies' Home Journal, p. 13.
Kirby, Rollin, McClure's, pp. 670-675.
Larsson, Carl, International Studio, pp. 116-120.
Lester, Charles F., Century, p. 956.
Leyendecker, Frank X., McClure's, cover.
Linson, Corwin Knapp, Palette and Bench, pp. 168-170; Scribner's, pp. 421-427.
Lutz, E. G., St. Nicholas, pp. 497, 547, 572.
Masters, F. B., St. Nicholas, pp. 499, 501.
McCormick, Howard, American Magazine, pp. 770, 775.
Melchers, Gari, Craftsman, p. 15; International Studio, p. 161.
Millet, F. D., Craftsman, pp. 74, 75.
Mooney, Edward, Century, p. 934.
Mowat, H. J., American Magazine, pp. 815-823.
Mucha, Alphonse, Printing Art, p. 112.
Murillo, Ladies' Home Journal, p. 14.
Nattier, House Beautiful, pp. 130, 143.
Neagle, Charles F., Circle, pp. 209-211.
Nelson, Patrick, Century, p. 909.
Newcomb, Harriet Adair, St. Nicholas, p. 516.

Nolf, John T., Inland Printer, p. 64.
Paist, Henrietta Barclay, Keramic Studio, pp. 250, 251, 264.
Popini, Alexander, Century, pp. 865-869.
Pratt, Julie C., St. Nicholas, pp. 549, 550.
Preston, May Wilson, Circle, pp. 202-208; Good Housekeeping, pp. 467-469.
Pyle, Howard, Harper's, frontispiece, p. 664.
Raleigh, Henry, Century, pp. 891-896.
Relyea, C. M., Ladies' Home Journal, p. 9; St. Nicholas, pp. 511, 512.
Rembrandt, Palette and Bench, p. 167.
Remington, Frederick, St. Nicholas, p. 553.
Rosenmeyer, B. J., Ladies' Home Journal, p. 11.
Ross, Edith Alma, Keramic Studio, pp. 254, 256, 257, 270.
Saint-Gaudens, Augustus, World's Work, p. 12742.
Sargent, Alice, St. Nicholas, p. 507.
Schoonover, F. E., Century, p. 820; Harper's, pp. 651-660.
Shorey, G. H., Harper's, pp. 779-785.
Solon, Leon V., Outlook, pp. 682-687.
Sorolla y Bastida, Joaquin, Printing Art, frontispiece.
Steele, Frederic Dorr, McClure's, pp. 605-618.
Steichen, Eduard J., International Studio, pp. xl-xliii.
Sterner, Albert, Scribner's, pp. 509-511.
Tarbell, Edmund C., Harper's, p. 728.
Taylor, F. Walter, Harper's, pp. 717-725.
Trezise, F. J., Inland Printer, frontispiece.
Van Dyck, Palette and Bench, p. 165.
Varian, George, St. Nicholas, pp. 526, 529.
Vedder, Elihu, World's Work, pp. 12819-12824.
Velasquez, Ladies' Home Journal, pp. 14, 15.
Verpilleux, E. A., International Studio, p. 137.
Wiard, Charles Lee, Keramic Studio, p. 261.
Williams, John A., Harper's, pp. 681, 688.
Williamson, Arthur T., Inland Printer, p. 56.
Winter, Charles A., Scribner's, frontispiece.
Wolf, Henry, Harper's, p. 728.
Yohn, F. C., Scribner's, p. 444.
Zorn, Anders, International Studio, pp. 114-117.

COLOR PLATES

A Lofoden Seascape, Ann Boberg, International Studio, p. 147.
Alphonso XIII, King of Spain, Joaquin Sorolla y Bastida, Printing Art, frontispiece.
A Market-day, Corwin Knapp Linson, Scribner's, p. 426.
Annunciation, The, Fra Angelico, Practical Teacher, p. 583.
A page cut in patent leather, Inland Printer, p. 96.
Autumn, L. O. Griffith, Inland Printer, p. 72.
Boatbuilder's Yard, Rye, Albert Goodwin, R. W. S., International Studio, p. 95.
Bristol, Albert Goodwin, R. W. S., International Studio, p. 87.
Chase of the Bow-head Whale, The, Clifford W. Ashley, Century, p. 871.

Colour Work in Schools, J. Young, Practical Teacher, p. 603.
Cover Design, Gus Baumann, Inland Printer.
Cover Design, Clara M. Burd, Circle.
Cover Design, Arthur Covey, American Magazine.
Cover Design, W. Hamilton Gibson, Ladies' Home Journal.
Cover Design, Frank X. Leyendecker, McClure's.
"Flaggingly the reed pen went up and down the vellum," Howard Pyle, Harper's, p. 664.
Freesia, E. E. Daniels, Keramic Studio, supplement.
Garden of Gethsemane, The, Jules Guerin, Century, frontispiece.
In a Venetian Garden, Louis Betts, Palette and Bench, supplement.
"Leave me not, little lovers of the air," Charles A. Winter, Scribner's, frontispiece.
"Malcontenta—a palace whose glory has departed," Walter Hale, Harper's, p. 744.
Mount of Olives as seen from Jerusalem, The, Jules Guerin, Century, p. 811.
"Over it march the marriage guests," Corwin Knapp Linson, Scribner's, p. 421.
Pupils' Drawings, Practical Teacher, p. 586.
Silk-mills at Night, The, F. E. Schoonover, Harper's, p. 660.
Symbolic Cover Illustration, Alphonse Mucha, Printing Art, p. 112.
Tiberias and the Sea of Galilee, Jules Guerin, Century, p. 805.
Tower, The, E. A. Verpilleux, International Studio, p. 137.
Westminster, Albert Goodwin, R. W. S., International Studio, frontispiece.
Whole World goes afield to-day, The, Howard Pyle, Harper's, frontispiece.

NOTABLE DESIGNS

Aprons, Practical Teacher, pp. 594, 595.
Belt Buckles, Palette and Bench, pp. 174-176.
Bookbindings, International Studio, pp. 111, 112.
Book Covers, Craftsman, pp. 106-114.
Book Plates, International Studio, p. xlvi.
Book Rack, Manual Training Magazine, pp. 389, 390.
Border Designs, Printing Art, pp. 105, 126.
Camp Bookcase, Craftsman, pp. 120, 122.
Camp Table, Craftsman, p. 118.
Candlesticks in Wrought Iron, International Studio, p. 110.
Carved Boxes and Tiles, Palette and Bench, pp. 177-179.
Carved Clock, Palette and Bench, p. 178.
Case for Golf Scores, Palette and Bench, pp. 182, 183.
Catalog Covers, Inland Printer, pp. 96, etc.
Chest Seat, Manual Training Magazine, pp. 389, 391.
Child's Jackets, Practical Teacher, pp. 594, 596.
China Decoration, Keramic Studio, pp. 250-271; Ladies' Home Journal, p. 53.
Chip-carving, Palette and Bench, pp. 177-179.
Copperwork, Manual Training Magazine, pp. 302-317.
Couch Pillows—Darning Stitch, Craftsman, pp. 128, 130.
Crocheted Doilies, Ladies' Home Journal, p. 49.
Decimal Balance, Manual Training Magazine, p. 388.
Decorative Panel, International Studio, p. 113.
Embroidery, Ladies' Home Journal, pp. 33, 39, 59.

Furniture, House Beautiful, pp. 137, 138, 143; International Studio, pp. 105-106; made from boxes, Ladies' Home Journal, p. 43.
Garden Sculpture, International Studio, p. 150.
Japanese Stencils, Palette and Bench, pp. 180-182.
Lectern in Wrought Iron, International Studio, p. 110.
Line and Shade, Examples of, Printing Art, pp. 105-112.
Linen Curtain with Appliqued Design, Craftsman, p. 128.
Metal Work; camp kettle, teapot, pitcher, sugar bowl, etc., Craftsman, pp. 124, 126.
Needlecase, Practical Teacher, pp. 593, 594.
Panel with Carved Inscription, International Studio, p. 109.
Paper Knives, Manual Training Magazine, p. 341.
Picture Frames, Palette and Bench, p. 185.
Portiere, Palette and Bench, p. 174.
Pottery, Vases, International Studio, p. 109.
Rare Derby Patterns, House Beautiful, p. xxiv.
Rug, Manual Training Magazine, p. 371.
Sewed Baskets, Palette and Bench, p. 184.
Stained Glass Design, International Studio, p. 112.
Stenciled Curtains, Ladies' Home Journal, p. 45.
Tapestry, Palette and Bench, pp. 171-173.
Three-fold Screen, Manual Training Magazine, pp. 385, 386.
Watch Fobs, Manual Training Magazine, pp. 338, 339.
Windows for Plymouth Church, Brooklyn, designed by Frederick S. Lamb, International Studio, pp. xliv, xlv.

THE SCHOOL ARTS GUILD

I WILL TRY TO MAKE THIS PIECE of WORK MY BEST

MARCH CONTEST—AWARDS

First Prize, Book, a "School Arts Kit," and Badge with gold decoration.

*Ruth Clark, V, Easthampton, Mass.

Second Prize, a box of Munsell Colors, Wadsworth, Howland Co., and Badge with silver decoration.

Helen Ayer, VIII, 118 Emery St., Portland, Me.
Fannie Downs, VIII, 1145 S. American St., Stockton, Cal.
Ethel Sexton, IV, Main St. School Building, Brattleboro, Vt.
Colin Stard, VI, 5 Grove Square, Boston, Mass.
Huga Anderson, V, 2502 Court St., Sioux City, Ia.

Third Prize, a copy of "Blackboard Drawing," published by The Davis Press, and Badge.

Clyde Cole, V, Park Ridge, N. J.
Claudio Comolli, IV, Quarry Hill School, Westerly, R. I.
Edward Dain, II, Sidney, N. Y.
Alice Jenkins, VIII, Milton, Pa.
Laura Mertz, VII, Milton, Pa.
Martha Mollison, VIII, 19 Spruce St., Portland, Me.
*Frank Prince, VIII, 1314 E. Sonora St., Stockton, Cal.
Glen Pyle, VIII, Shabbona School, Ottawa, Ill.
Helen L. Way, V, 22 Prospect St., Brattleboro, Vt.
Rolly Evan Whitlow, VII, 1421 West 6th St., Sioux City, Iowa.

Fourth Prize, the Badge.

Robert W. Bixby, IV, West Groton, Mass.
Florence Bray, V, 307 Ninth St., Sioux City, Iowa.
Emma Brummel, VII, Lincoln School, Ottawa, Ill.
Ella Claney, VI, 4424 Central Ave., Sioux City, Iowa.
Viola Donovan, Florence Grammar School, Northampton, Mass.
Rufus Arthur Eaton, VI, So. Sudbury, Mass.
Alice M. Gilman, VII, No Sudbury, Mass.
Charles F. Goodnow, Jr., VI, So. Sudbury, Mass.
Nellie Hoey, VIII, Whitefield, N. H.
Raymond Kitchen, I, Wakefield, Va.
Dorothy Langworthy, III, Park Ave. School, Westerly, R. I.
Caroline Leland, Chapman School, East Boston, Mass.
Ella Libhart, III, 227 S. Pilgrim St., Stockton, Cal.
Lillian McIntyre, IX, Whitefield, N. H.
James Mittag, V, Park Ridge, N. J.
Harry Prahser, IV, 33 E. Scott Ave., Stockton, Cal.

*A winner of honors in some previous contest.

Isaac Sansoucy, I, 71 Worcester St., Southbridge, Mass.
Beatrice Schlafer, IV, Sidney, N. Y.
Esther Swanson, V, 1711 N. Boulevard, Sioux City, Iowa.
Katherine Vose, VIII, 252 Portland St., Portland, Me.

Special Prizes. Alphabet Packet, Initials, and Badge.

Alex Burchett, 4535 Brooklyn Ave., Seattle, Wash.
Oscar Hill, 710 15th Ave., Seattle, Wash.
Irene Majors, 506 15 Ave., Seattle, Wash.

Nature Packet.

Children under Miss Marie O. Petersen, St. Petersburg, Russia.
Children of Grade III, Endicott School, Peabody, Mass.

The Badge.

Walter McManus, 725 Alder St., Seattle, Wash.
Herbert Woodford, 704 12th Ave., Seattle, Wash.
Fred Zwickel, 817 Yesler Way, Seattle, Wash.

Honorable Mention

Iris Abel, Stockton
August Allec, Stockton
Marjorie Atwood, Portland
Charlie Barfield, Wakefield
Willie Cardoza, Stockton
*Will Carnaghan, Avondale
Harold Colby, Whitefield
Andrew Crotty, East Boston
Louise Curran, Wilkes-Barre
John Cussen, Sioux City
Lucy Duhaime, Globe Village
Ralph W. Emerson, Somerville
Nellie Erickson, Ottawa
Mira Fairbank, Sudbury
Emma Gerding, Ottawa
Charlie Gormley, Whitefield
Frank Griffith, Park Ridge
Mattie Gyger, Ottawa
Anita Hassley, Ottawa
Eddie Hegstead, ——
*Gardiner Hill, Westerly
Peorgiana Hummel, Seattle
Elbert Ingram, Lawrence
Gilbert James, Westerly
Fred P. Kint, Milton
Agnese Knowlton, Easthampton
Mildred Lanphere, Westerly
Marie Larochelle, Portland
Lottie Lattin, Sioux City
George Leinson, Easthampton
Walter Lindale, West Groton
Edgar Lindner, Lawrence
Bessie Love, Seattle
Marion E. Moulton, West Groton
Myron Muir, Sioux City
Thomas Pignataro, Westerly
Ruth Prior, Seattle
Katherine Rogers, Sudbury
Rueben Rose, Park Ridge
Albert Vigeant, Fall River
Harold Webber, Stockton
Katherine Wells, Westerly
Chester H. Wiggin, Whitefield
Inez Wold, Seattle

169 Fort Hill Ave., Lowell, Mass.,
March 21, 1910.

Dear Mr. Bailey:—

We received our badge and the returned drawings safely, and thank you very sincerely.

*A winner of honors in some previous contest.

The badge adorns the little girl who won it, and the drawings may adorn the walls of Whistler's birthplace, when we hold our exhibition in May.

I believe Whistler himself was not without a sense of humor.

Sincerely, Margaret M. Sparks,
Abraham Lincoln School.

Please remember the regulations:

Pupils whose names have appeared in The School Arts Book as having received an award, must place on the face of every sheet submitted thereafter a G, for (Guild) with characters enclosed to indicate the highest award received, and the year it was received, as follows:

These mean, taken in order from left to right, Received First Prize in 1905; Second Prize in 1906; Third Prize in 1907; Fourth Prize in 1906; Mention in 1907. For example, if John Jones receives an Honorable Mention, thereafter he puts M and the year, in a G on the face of his next drawing submitted. If on that drawing he gets a Fourth Prize, upon the next drawing he sends in he must put a 4 and the date, and so on. If he should receive a Mention after having won a Second Prize, he will write 2 and the date on his later drawings, for that is the highest award he has received.

☞Those who have received a prize may be awarded an honorable mention if their latest work is as good as that upon which the award is made, but no other prize unless the latest work is better than that previously submitted.

☞The jury is always glad to find special work included, such as language papers upon subjects appropriate to the month, home work by children of talent, examples of handicraft, etc.

☞Remember to have full name and mailing address written on the back of each sheet. Send the drawings flat.

☞If stamps do not accompany the drawings you send, do not expect to obtain the drawings by writing for them a month later. Drawings not accompanied by return postage are destroyed immediately after the awards are made.

☞A blue cross on a returned drawing means "It might be worse!" A blue star, fair; a red star, good; and two red stars,—well, sheets with two or three are usually the sheets that win prizes and become the property of The Davis Press.

SCHOOL ARTS SUMMER SCHOOLS

Every one of the schools mentioned here has circulars of information ready for mailing. Address the secretary or director of the school.

AMERICAN INSTITUTE OF NORMAL METHODS

Twentieth annual session: Eastern School, New England Conservatory of Music, Boston, Mass.; Western School, Northwestern University, Evanston, Illinois, July 12th to 29th, 1910.

This school offers unequalled courses in Methods, Practical Teaching, Sight-Reading, Conducting, Harmony and other subjects. In the drawing department, opportunity is given students to develop those branches in which they are especially interested.

Art students who wish to learn how to teach, grade teachers who wish to become supervisors, supervisors who wish to learn new methods of meeting old problems, should certainly investigate these schools. For full information address William M. Hatch, Manager Eastern School, 221 Columbus Avenue, Boston; or Frank D. Farr, Manager Western School, 378 Wabash Avenue, Chicago.

ART ACADEMY OF CINCINNATI

Summer term: Ten weeks, June 13 to August 20, 1910.

Endowed for thorough training. Its location in Eden Park, overlooking the city and surrounding hills, is favorable for summer work. Drawing and painting from life, and landscape-modeling. Applied design.
J. H. Gest, Director, Cincinnati, Ohio.

ART INSTITUTE OF CHICAGO SUMMER SCHOOL

Normal Instruction. June 27th to August 5th, 1910.

Painting, Drawing, Decorative Design, Sculpture, Architecture. Students enter at any time for short or continuous periods of study.

Each department thoroughly organized. Unexcelled opportunities for serious students. For prospectus and further information address Ralph Holmes, The Art Institute of Chicago.

BATCHELDER CRAFT SHOP

Pasadena, California.

Courses of Summer work are offered in Design, Composition, Pottery, Leather, Embroidery, Jewelry; beginning June 26 through a period of four weeks. Detailed information of this work will be furnished on application, Ernest A. Batchelder, Director.

BRADLEY POLYTECHNIC INSTITUTE

Peoria, Illinois, June 27 to July 30, 1910.

Course in Art Metal Work under Arthur F. Payne (silversmith, sample maker, member of Boston Society of Arts and Crafts, for two years director of Arts Crafts School, Columbus, O.). Also courses in Design, Stenciling, Leather Tooling, Freehand Drawing, Constructive Design, Elementary Handwork, Woodworking, Mechanical Drawing, Machine Drawing, Machine Tool Work, Pattern-Making, Textiles, Sewing, Dressmaking, Art Needlework, Cooking, Chemistry of Foods, Physiological Chemistry, and Bacteriology. Lectures on Manual Training by Joseph Henry Judd, Superintendent of Handicraft, Manchester, England. Three hours of work a day in each subject; full credit courses. Send for circular.

CHICAGO ACADEMY OF FINE ARTS

Special Tutoring during the summer in any branch of Art Training, at any time and for any length of time.

Also the Regular Classes in Illustration, Drawing, Painting, Cartoon, Commercial Illustration, Composition, Design, School Methods and Crafts, for which tuition is $25.00 for the three summer months.

Studios overlook Lake Michigan and are light and airy. Credits and certificates given. Boarding places on application to M. M. Newman, Secretary, No. 6 East Madison Street, Chicago, Illinois.

CHICAGO SCHOOL OF APPLIED AND NORMAL ART

Has announced a three weeks' summer term beginning August first and closing August nineteenth.

The regular art school will be in session at this time and offers to teachers and others an opportunity to study drawing and painting from the nude and costumed model, illustration and cartoon, design and composition, and other subjects, with its regular instructors. A special summer class for teachers under Miss Church's instruction, will study classroom methods, and such phases of the crafts, water color, design and composition, modeling and sketching from figure and flowers, as come under the conditions of the primary, grammar and high schools. The summer session will be held in the beautiful studios of the school, in the new Harvester Building which faces Lake Michigan and which enjoys the cool lake breezes

COGGESHALL CAMP AND STUDIO

At Lanesville, Cape Ann, Mass. Open until September 15th.

Offers a course of instruction in drawing and painting from nature under an experienced teacher who has studied and painted in many lands. Beginners and those who have made some progress in out-of-door sketching will find here an unusual opportunity to work directly from nature, in oil, water color, charcoal or pencil by new and simplified methods. The camp buildings and studio were designed and built especially for this work and are situated beside the sea on a beautiful spot on the Cape Ann shore. This art students' camp is unique in that it provides comfortable room, good board and best of practical instruction with pleasantest vacation surroundings and can accommodate a few who do not care to work in the classes, thus enabling students to bring friends as room-mates who would enjoy the out-of-door life. An illustrated booklet on application. John I. Coggeshall, 473 Beacon Street, Lowell, Mass. After June 15th at Lanesville.

COLLEGE OF FINE ARTS, UNIVERSITY OF SOUTHERN CALIFORNIA

Summer classes in fine and applied arts.

Teachers' normal course covering all school grades. July 5th to August 27th. Catalogue on request. W. L. Judson, Dean, 212 Thorne St., Los Angeles, California.

COMMONWEALTH ART COLONY, "A PLACE FOR WORK AND PLAY."

Boothbay Harbor on the Coast-of-Maine.

This is not a camp, neither is it strictly a school. Comfortable rooms in private homes and new cottages or hotels, with bath, piano and all conveniences are the regular thing. Tents and bungalows are for those who prefer the out-of-door life.

There is a great variety of picturesque subjects for artists and photographers. The workshops and studios are well equipped. Craftsmen may sell their products in the Colony store; Supervisors may take courses in methods; and Grade Teachers receive help in their Industrial or Art Work.

Many do not study at all, but come just for the outing, and because it is an interesting place full of interesting people. There is plenty of social life at the Colony and in the village.

Send for illustrated booklets. A. G. Randall, Director of Manual Arts, Providence, R. I.

SUMMER SCHOOLS

CORNELL UNIVERSITY

The Nineteenth Summer Session of Cornell University, July 6 to August 16 will continue to offer a large range of work in Industrial Education, including courses, theoretical and practical, in Drawing and Art.

For full information address The Registrar, Ithaca, N. Y.

MR. MARSHAL T. FRY'S SUMMER ART CLASS

Southampton, N. Y.

Fourth Season, July 12th to August 23rd, six weeks. The courses are of especial interest to those teaching in the schools. The various subjects considered in the courses will include Elementary Drawing and Composition of Landscape and Still Life, Sketching from the figure, advanced work in Landscape and Still Life Painting, Out-door Sketching, etc. Use of the Figure and Landscape in the Illustration of stories and verses, Cover Designs, etc.

The Principles of Design will be taught in their relation to Clay Modelling and Pottery Making, Overglaze, Keramics, Textiles, Lettering, Book Plates, Holiday Greetings, etc. Clay Modelling and Pottery will be considered more especially with reference to the needs of those who teach these subjects in the schools. Building of Pottery forms, and ornamentation, making of tiles, use of color in connection with Pottery and Modelling.

LYME SUMMER SCHOOL

The Ninth Season of the Lyme Summer School.

Will open as usual June fifteenth and close September fifteenth. The classes will be under the personal instruction and direction of Mr. Frank Vincent Du Mond who will give three criticisms each week. Two of these will be out of doors on figure and landscape painting. The third will be a general talk based upon all and any kind of work produced during the week. This has for its object the stimulating of personal tendencies and efforts and the consideration of the esthetic side of the summer's work. It has proven of the greatest value to students and teachers alike.

For information as to terms, materials, board, railways, etc., apply to Miss Martha L. Purdin, 131 Stuyvesant Ave., Arlington, New Jersey. After June first, Lyme, Connecticut.

MARTHA'S VINEYARD SCHOOL OF ART

Vineyard Haven, Mass. Conducted by Arthur R. Freedlander.

The Sixth Season commences June 20th, ends September 20th, 1910.

Instruction will be given in Landscape, Marine and Figure Painting in all mediums. There will be three criticisms a week. Students receiving their full share of individual attention. A well appointed Studio will be at the entire disposal of students. In inclement weather work from the model will be continued here. Class for Beginners. Terms: The tuition will be fifteen dollars a month payable in advance. A special two weeks' course at ten dollars For the season forty dollars Special Course for Students of Architecture. This course is designed to be of great value in developing the students' facility in the handling of water color and washes. It will comprise landscape and marine painting, studying the massing of foliage, cloud and sky effects, etc. Subjects will be chosen with a view to their utility in the rendering of "projects."

Vineyard Haven, after three centuries of existence is one of the rare places left unspoiled by modern progress. The climate is delightful, and for recreation the student will find excellent boating, bathing and fishing.

MINNEAPOLIS SCHOOL OF FINE ARTS

Summer Term, June 13 to August 13, 1910.

Drawing and painting from the object; out-door sketching in black-and-white and color; sketching from the costumed figure; composition and illustration.

Normal Art Course for teachers.

Special class in out-door painting.

The schoolrooms, well lighted and accessible by elevator, are situated on the fourth floor of the public library building. For particulars apply to Robert Koehler, Director, Minneapolis, Minn.

MONHEGAN ISLAND SCHOOL OF METAL WORK AND JEWELRY

At Monhegan Island, Maine, July 5 to August 13, 1910.

The courses, with instruction three mornings each week, are planned for beginners, advanced students and teachers. Those without previous instruction will be given an opportunity to spend a useful and entertaining summer in forming artistic pieces of jewelry and table-ware of actual financial value and service.

The Island of Monhegan lies off the coast of Maine and is one of the most attractive and unique in the North Atlantic. The fresh ocean air is a most pleasing stimulus to work in the studio, picturesquely located in the spruces within a few feet of the ocean cliffs. The uninterrupted horizon, so suggestive of mid-ocean, island traditions, boating, fishing, all afford a pleasing recreation for leisure hours.

The Director, William H. Varnum, pupil of L. H. Martin, Dr. Ross and others, has had many years of experience in teaching the subject from the craft and educational standpoint. For circulars, apply to William H. Varnum, Director, School of Fine and Applied Arts, James Millikin University, Decatur, Illinois.

NEW YORK SCHOOL OF FINE AND APPLIED ART

The Summer School of the New York School of Fine and Applied Art, from July first to August thirty-first, located at Chester, Mass., in the famous Berkshire Hills, easy of access on the main line of the Boston and Albany Railroad, one hour west from Springfield, with ten (10) trains daily. Cool, dry with pure air and water and comfortable homes, offers an unusual opportunity for Art Study, and true summer enjoyment in a rural way. Classes in out-of-door work from landscape and the model. Studio classes in illustration, from the head and sketch, Normal Art, Interior Decoration, Advertising, Design and the Crafts. All work is individual, and students may specialize in the classes best adapted to their particular need. The work is under the personal direction of Frank Alvah Parsons, who returns from Europe at this time especially to take up the work with the summer school.

NEW YORK UNIVERSITY SUMMER SCHOOL

Dr. Haney's classes in "Methods of Teaching Art in High School" and in "Practice of Design."

University Heights, for three weeks, July 6th, to 27th.

The New York University, in extending its policy of offering under Dr. Haney, post-graduate courses in the arts, presents this summer a unique and very condensed scheme of instruction in "Methods of Teaching Art in High Schools." Sixty elaborately illustrated lectures are to be given on six topics, including: "Representative Drawing" with emphasis upon memory work and constructive principles; "Figure Drawing" with the essentials of artistic anatomy; "Pencil Drawing from Nature"; "Design" with many practical prob-

lems; "Color" with emphasis on the practical development of color harmony, and ten lectures full of new and important suggestions on "Art in relation to the life of the pupil." As the University plans to change the courses each year, this methods course will not be repeated in 1911.

Dr. Haney also gives this session his studio course in "Practice of Design" with two daily lessons and criticisms, and the development of many practical problems. A full synopsis of both courses is given in an illustrated circular issued by the University, to be obtained of Prof. James E. Lough, Director Summer School, Washington Square, New York City.

STOUT INSTITUTE

Menomonie, Wisconsin.

The Fifth Annual Summer Session will be held from August 1st to September 2nd, 1910.

Twenty-five Courses in Manual Training; Sixteen Courses in Domestic Economy; Three Courses in Art; Regular Faculty; Full Equipment of the Institute Available; Outing Camp proposed for men; First-class accommodations in dormitories for women.

For full information, address L. D. Harvey, President Stout Institute.

SUMMER INSTITUTE OF MECHANIC ARTS

Mount Hermon, Santa Cruz County, California. June 20 to July 30, six weeks.

Courses: Primary grades—Correlated and Illustrated Handwork, Art in Handwork, Cardboard Construction, Clay and Pottery, Sewing, Wood Constructions, Basketry, Weaving and Cardwork. Elementary grades—Domestic Science, Bent Iron, Riveting and Hammered Metals. Advanced grades—Domestic Science, Woodworking and Simple Furniture, Applied Design, Hammered Brass and Copper, Freehand Drawing, Water Color, Lectures.

The purposes of the Institute are: (1) To give to teachers and students of manual arts and household arts exactly such work as they wish and need; (2) To correlate art and hand work, making each project artistic, and applying all design to specific pieces of hand work; (3) To offer all work as far as possible in the open fresh air; (4) To secure instructors of broad college training and of practical experience in public school work; (5) To minimize theoretical instruction and stress especially experience in doing and making.

Individual method of instruction will prevail in all work offered. It is planned to spend every possible minute in doing.

Certificates stating quality of work and amount of time spent on each course will be issued to all members of the Institute.

All possible combinations for boarding are offered, from camp cooking to the very best hotel service. Students wishing to enter upon real camp life will find Mount Hermon an exceedingly cheap place to spend the summer.

Forty reservations will be made in Camp Sequoia for teachers and students of the Institute. The camp conveniences are all modern and hygienic.

Write to Mr. William H. Bouick, Mount Hermon, California, for all information regarding accommodations and rates. Make your reservations early. Furnished tents may be had from $2.00 a week and up. Excellent board and life in tents, $35.00 per month.

James Edwin Addicott, B. S., M. A., Director, 951 Magnolia St., Oakland, Cal. After June 5th, Mt. Hermon, Cal.

SUMMER SCHOOLS OF CHAUTAUQUA INSTITUTION.

Competent instruction. Thirteen departments, including courses in Arts and Crafts, under direction of Henry Turner Bailey. About 2,500 total yearly enrollment. The best environment for study. Famous lectures. A place whose charms are noted. Expense moderate. Catalogue on request. Chautauqua, New York.

SUMMER SCHOOL OF THE RHODE ISLAND SCHOOL OF DESIGN

Providence, R. I., July 6 to August 10.

Teachers of Drawing and Manual Training as well as Students and Craftsmen will find an unusual opportunity offered them in the courses given this summer. Those who are trying to meet the demand for an increased knowledge in the manual arts will find these courses very helpful. All work will be credited in the same way as in the winter session, and certificates will be issued to students who have satisfactorily completed a summer course.

Courses: I. Theory of Design. II. Practical Design. III. Out-door Sketch Class. IV. Metal Work for Grammar and High Schools. V. Jewelry and Silversmithing. VI. Manual Training for Elementary Schools. VII. Wood Working.

For further information send for circular, address Augustus F. Rose, Director of Summer School

SUMMER SCHOOL OF THE SOUTH

University of Tennessee, Knoxville. Six weeks, June 21 to July 29, 1910. Twenty courses in Manual Training, Drawing, and Arts and Crafts. Adapted especially to the needs of teachers.

Under the direction of Prof. Royal Bailey Farnum, supervisor of drawing for the Department of Education of the State of New York, and Prof. Frederick James Corl, of Dupont Manual Training School, Louisville, Ky. Eight instructors. Systematic courses running through four years.

Certificates and credits for satisfactory work done. For further information, address P. P. Claxton, Superintendent.

SUMMER SKETCH CLASS

Rhoda Holmes Nicholls will take a limited number of students during the months of July and August at East Gloucester, Mass.

Tuition includes three open air lessons a week besides a general criticism on Saturday morning in the studio, of all work done during the week. East Gloucester is a well-known haunt for artists owing to its many picturesque spots, and its situation between the harbor and the ocean render it cool enough to work with ease throughout the summer.

For further information, apply to Rhoda Holmes Nicholls,
Colonial Studios, 39 West 67th St., New York.

TEACHERS COLLEGE

Professor Arthur Wesley Dow will remove his Ipswich Summer School of Art to Teachers College this summer and will be present to give personal attention to the courses. They will be similar to those formerly given at Ipswich, with the added advantage of the work offered by the college in industrial and household arts, in education and in other matters of interest to the art teacher. The libraries of the university, the textile collections and Professor Dow's own collection of Japanese prints will be available to the student. There will also be opportunity for landscape painting, and the instructor will give class criticism and illustrated lectures upon art appreciation.

CHARLES H. WOODBURY'S OGUNQUIT SUMMER SCHOOL OF DRAWING AND PAINTING

July 5th to August 13th.

Painting in Oil and Water Color. Course in Pencil Drawing especially adapted to teachers. For information apply to Miss Susan M. Ketcham, Secretary, 61 Blacherne, Indianapolis, Indiana, or Charles H. Woodbury, Ogunquit, Maine.

WORCESTER GUILD FOR TEXTILE CRAFTS

Second season. Summer Classes at Leicester, Mass., six miles from Worcester on state road. Sara Gannett Houghton, Director. Formerly teacher of Weaving and Dyeing at the Worcester Art Museum School and Crafts Shops.

A delightful, old-fashioned, New England house with orchard and garden. A garret for looms and weaving. A big summer kitchen for dyeing. Individual instruction in weaving, stenciling and dyeing, ecclesiastical embroidery, and modern needlework, based on the study of mediæval tapestries.

For information concerning details of classes, hours and terms, and board and lodging, which may be secured near the Guild House, at very moderate rates, address Secretary Textile Crafts Guild, Leicester. Classes open about July 1st. Applications should be made at once. An Automobile Tea-room, and a Salesroom will be open for the accommodation of students, and for their work, on acceptance.

A well-known artist will conduct an out-door sketching class on the request of a sufficient number of applicants.

PRANG SUMMER SCHOOLS

Nineteen summer schools for the promotion of public school art instruction will be held under the auspices of The Prang Educational Company, during the season of 1910. These schools will be held in various cities and states throughout the country.

The Courses offered in the various schools will be thorough and up-to-date, and will present the most modern conceptions of the relation of art education to vocational training in its broadest sense, and will include instruction in normal methods, in representative and constructive drawing and in the various phases of design. Each of the schools will be in charge of instructors well known in their fields of work, and with specialists in the various departments of handicrafts and design. Several of these schools have been in operation for years, and the work taken up each summer is so related that teachers who so desire may continue their work in the various courses without undue repetition of the work. Certificates of attendance for each year are issued to students who satisfactorily complete the Course.

All of the schools are under the direction of Hugo B. Froehlich, Director of the Educational Work of The Prang Educational Company, 113 University Place, New York City. Circulars of the various schools upon request.

A vacation trophy worth having. A pencil drawing by Charles H. Richert, reproduced by courtesy of the Manual Training Bulletin, Boston.

The School Arts Book

AN ILLUSTRATED MONTHLY MAGAZINE for THOSE INTERESTED IN DRAWING *and the* ALLIED ARTS

HENRY TURNER BAILEY
EDITOR

September to June inclusive $1.50 a year, in advance

VOL. IX JUNE, 1910 NO. 10

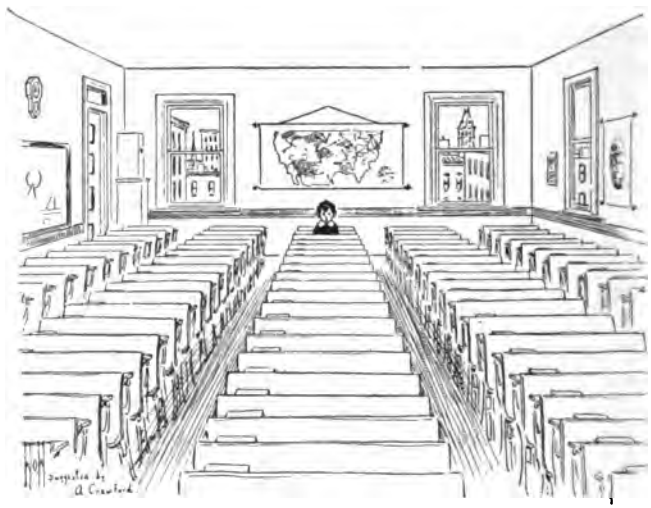
Entered at the Post Office at Worcester, Mass., as second class matter, August 17, 1903

CONTENTS

Variations on a Line Theme — Charlotte Reed
Out-Door Sketching — Elizabeth A. Keyworth
Manual Arts in Open Air Schools — Ida H. Clark
The Use of Flowers in Education — John C. Dana
Damascus Inlaying — Lanice Paton
The Art Heritage of Industry — James P. Haney
Annotated Lessons, September, with Illustrations
The Workshop—Woodworking—Model Yacht — Frank G. Sanford
Weaving—Belt and Bag of Braid — Katharine F. Steiger
Needlework—Spanish Costume — Blanche E. Hyde
Metalry—Enameling — Augustus F. Rose
The Exhibit
Editorial: The Next Volume; Design; Notes — Editor
Helpful Correspondence The Arts Library School Arts Guild
Reliable Advertisements Trade News

Published by THE DAVIS PRESS, Worcester, Mass.

COPYRIGHT, 1910, BY THE DAVIS PRESS. ALL RIGHTS RESERVED.



Kept In

A sketch from life, reproduced from Life.

❖

The School Arts Book
wishes all its readers
a delightful vacation.

❖

For announcements for the new volume which begins with the September number, see Editorial.

The School Arts Book

Vol. IX JUNE, 1910 No. 10

VARIATIONS ON A LINE THEME

THE twenty-four pillow tops, shown in these photographs, are by the girls and boys of one fifth grade. There were twenty-eight pupils in the grade. The other four were far from failures. Belonging to the quicker workers, they already covered fat, finished pillows and did not fit in the plan of the photograph.

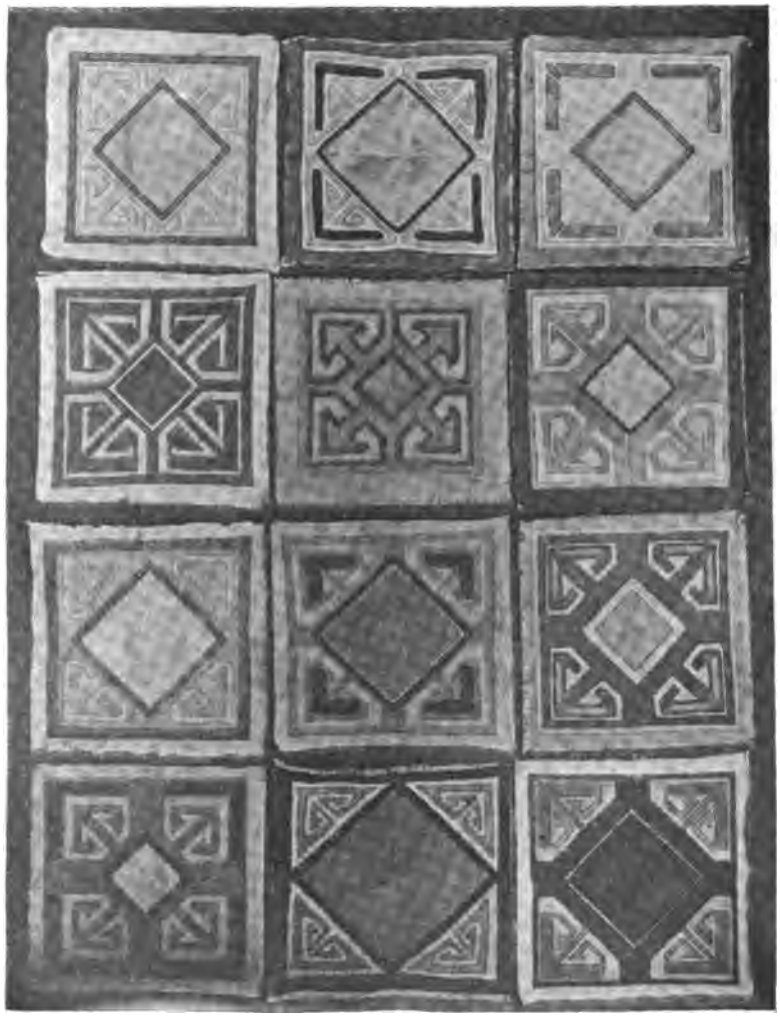
These designs represent the result of a lesson given on one general line theme. The children worked with a nine-inch scale, divided by folds as described in the article on Printing in the June School Arts Book, 1908. This length represented one-half the side of the square, and the design element, of course, exists in one-eighth of the square.

The floss used in working them was knitting cotton, wound into skeins and dyed by the children in their schoolroom. After being worked in outline the spaces were dyed according to the water color design first prepared. The color schemes were in any grayed color of the range of their water colors. Each design, however, was to be in tones and tints of one color. The color values are of course changed somewhat by the camera. Some show much more contrast than in reality. Others are weakened according as the color was one to take light or dark.

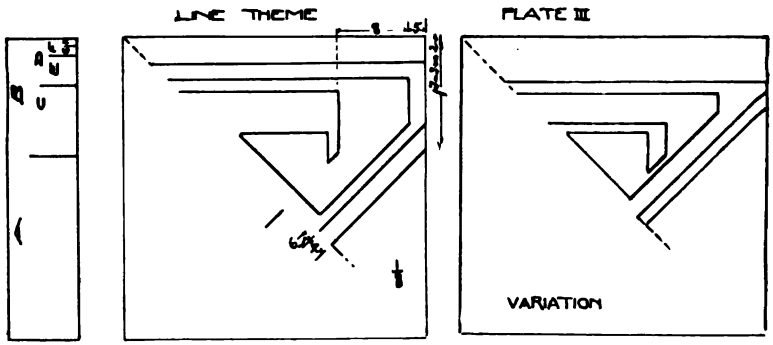
But it is not as to values we wish to claim special merit. Considering the age of these children, from ten to fourteen, the range of variation in line treatment seems rather interesting. I believe it is impossible to secure so great a variation on one theme from even mature pupils without the aid of this simple scale.

On Plate III is shown the line theme practically as given. Designs were to be built parallel to vertical, horizontal or the oblique of the diagonal, and the diagonal center. The first suggestion was the key-pattern beginning at corners. If spaces

Twelve variations of a line theme by girls and boys in one fifth grade, Marshalltown, Iowa.



Twelve other designs from the same grade, the result of a single lesson.



A rhythmic scale, a line theme, and a typical variation by a fifth grade pupil.

resulting were too great, subdivision was suggested. In studying some of the resulting patterns the interchange of dark and light is fascinating. Look at the light of the design first. Then consider the dark as an individual treatment.

Now the moral of this is not to say these are the best designs that could be made. It is not that anyone shall try to reproduce these. But in many a book or pamphlet on design are little hints of themes waiting to be taken and rendered in a multitude of line harmonies; not to be copied but to be re-cast in your own measures,—adapted to your problems,—for your own exceeding pleasure,—if it so becomes most truly "your own design."

It is for a drawing supervisor as she studies the book page, the wall, or case of the museum, the artist's touch everywhere, to be on the lookout for themes, analyze them for the simple line divisions,—then forget, lose or destroy all but the basic plan, and in a new treatment of proportion and color to recreate those themes and lead her children to do likewise. Variation, more than any other means, leads to analysis of themes in line about the pupil in daily life.

CHARLOTTE REED
Supervisor of Art Instruction
Marshalltown, Iowa

OUT-DOOR SKETCHING

OUT-DOOR sketching with the usual large classes of public school children is generally thought to be a difficult undertaking. In this article I shall try to show how it is possible to take out a class of twenty-five children and teach them how to make a simple sketch. Perhaps this can best be done by relating some of our own experiences.

As I walked to school one bright sunshiny day in June, the thought came to me, passing a certain old barn in the suburbs, what a nice sketch could be made there, and I began to wonder whether the class of boys then waiting for a lesson in landscape drawing, could be managed out of doors. The most talented boy was also the most mischievous, so with many misgivings I made plans for a trial.

The start was soon made and from the steps of a church we found we could look down a narrow street to the country beyond and get an excellent view of "Miller's old barn." All were soon at work and to my surprise were so interested that even the street cars passed unnoticed. Quite a number of very good sketches were made, and the one reproduced here was the work of the mischievous lad who was thoroly subdued—so absorbed in making his first sketch from nature. (Illus. No. 1).

As this attempt had proven successful I was encouraged to try again and have since made many excursions with the children, always with good results. Many of the pupils are awakened in this manner to the value of their previous landscape lessons from pictures, and also to an appreciation of the beauties of nature hitherto passed by without notice.

Pencil sketch of Miller's barn, Baltimore, by Warren E. Sewell.

Since that first trip many available places have been discovered and we have learned to surmount many difficulties which presented themselves. The simpler the equipment for this work, the better, so, by folding our 9″ x 12″ drawing sheet twice, we have a small pad, not easily blown away, and which

Class sketching on Brown's wharf, Baltimore. There is no lack of interest in such work.

can be held in place on a book—usually the Art Text Book. When preparing for the trip each pupil is provided also with a soft pencil, eraser, and finder, and the making and use of the latter explained. The interest aroused during this preparation is never failing and as a responsive class is always an inspiration to a teacher, her own interest is increased and she is encouraged to hope for the best results. Our plan is always to spend a short time before starting in studying some good pencil sketches,

recalling what we have learned about appearances of receding lines, etc. Especially do we dwell upon the importance of the study of values.

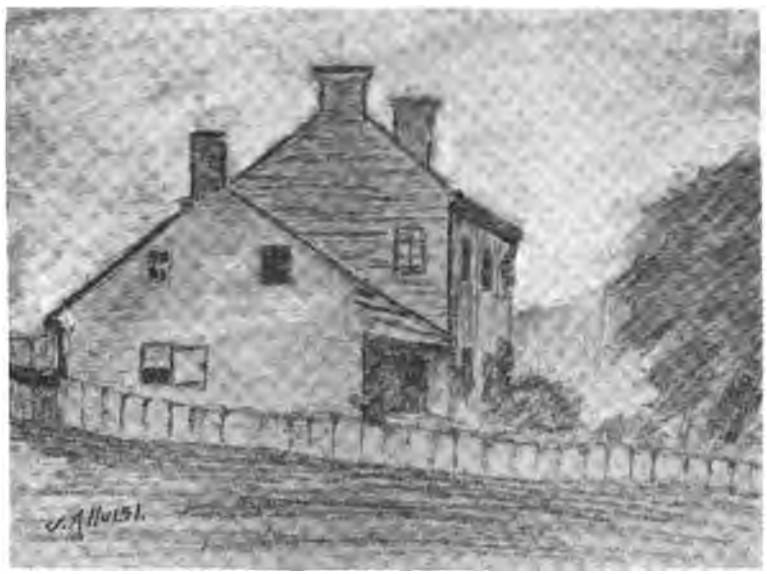
Recently, from a school situated not far from the water's

One of the sketches made on Brown's wharf. Such sketches now seem to the pupils to be real pictures.

edge we walked a short distance to find space on a long wharf, where we had abundant material for sketching.

Before starting on this trip the pupils were told that they would probably see many interesting objects—far too many to put in one picture; then some suggestions about the necessary simplicity of the sketch were given at the blackboard—how the

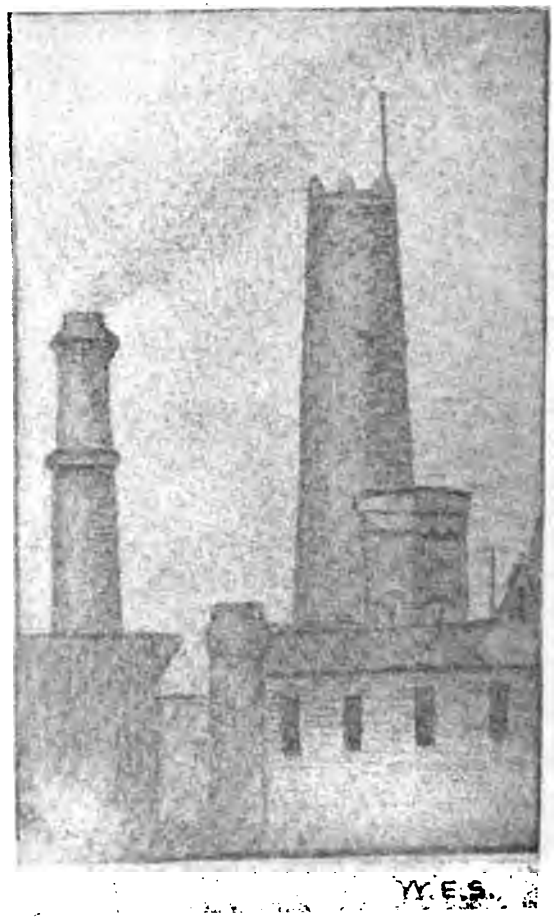
end of a pier or wharf might be selected as a centre of interest, and with suggestions of the buildings, tall chimneys, or whatever might be seen beyond, and a boat or two as a nearer object, in the foreground, an interesting little picture might be made.



The old farmhouse, an attractive spot to which many sketching trips have been made.

The giving of these instructions before the start, where all may hear, is a necessity, and then no time need be lost upon arriving at the destination. The photograph will tell of the interest shown in the work. (Illus. No. 2).

Usually a small pencil sketch can be made in an hour—the time of an ordinary drawing lesson in an eighth grade, but it is desirable to have longer time and often the class teacher, especially



Sketch of a shot tower from Johnson's square, Baltimore.
Limited glimpses of towers and tall chimneys
thru trees possess much interest.

if she is the teacher of language, is willing to add to our time for sketching from her own period, and frequently glad to go along, with the idea in mind that the children may gain from observation new material for a language paper which she may require from

Another sketch of the old farmhouse, made from a different view-point, by Maurice Dusman, who was interested enough to go out alone.

them later. The time is never long, for when the signal comes to stop work, the pleas are always for "just a few more minutes," so that finishing touches may be added to what seem to them now to be real pictures. (Illus. No. 3).

We are not always near the water front, however. Within ten minutes' walk of another school we have found an open lot,

where, on the edge, an old farmhouse still stands. This has been an attractive spot for many trips—one quite recently, from which we have a sketch reproduced. (Illus. No. 4).

Even a small city square or park is not to be despised as a vantage point, for even tho the subject matter be limited to glimpses of towers and tall chimneys thru the trees, such sketches as the one shown of our old shot-tower possess much interest. (Illus. No. 5).

And next day, in the class room, how eager they all are that other classes may be allowed to see the sketches placed upon the wall, which really all look well. (Illus. wharf sketches.)

Looking back upon their school days such events as these stand out in bold relief, and never fail to leave their impress upon the minds of boys and girls.

It has been proven that many do go much further in after years with out-door sketching.

ELIZABETH A. KEYWORTH
Baltimore, Maryland

MANUAL ARTS IN OPEN AIR SCHOOLS

DURING the past school year, I had the pleasure of visiting the schools of European countries, taking the trip under the auspices of the National Civic Federation of America.

The subjects of study assigned to me were Elementary Manual Training, and Trade Schools for Girls. The countries I visited were the British Isles, Germany, France, Holland, Belgium, and Switzerland. The trip extended over a period of about fourteen weeks.

At the time I arrived in London, the London Council, of which the Board of Education is a part, were considering the introduction of handwork into what they call the lower standards, —lower grades in our country. Representing the head of such a department in our country, I was invited to talk before the London Teachers' Association the first week I was in London. After that I gave nine public talks in London and met many of the Head Inspectors, and was taken about by them to see the elementary schools—special schools of all kinds—schools for the blind, deaf, mentally deficient, incorrigible, crippled, trade schools for girls and continuation schools,—and this newest phase of educational development in Europe—the open air or forest schools.

Generally speaking, educational handwork in the lower standards in the foreign countries, that I visited, was curiously lacking, but in these special schools it is splendidly developed. In these schools I found the manual arts in process, very similar in method and in educational value to those found in the best public and model training schools in America.

It seemed to me that to receive the best and most progressive education in London a child must belong to one of the above classes of abnormal children.

Handwork, in its various phases, is made the basis of all the work in these special schools and the other subjects are made vital thru the teaching of this means of expression. The

The working out of historical subjects. 1. The cave dwellers. 2. The potters.

results in the children are marvellous. It seems strange that the educational authorities do not see that if such training will do so much for the abnormal child, it would do far more for the normal child, who will be the future citizen of a country.

It is not the purpose of this article to comment further on the regular schools of European countries, as this would take the space of several articles, but I must pass on to the very interesting work done in the open air schools of England and Germany.

Within the past five years Germany and England have established these open air schools, the object of which, generally speaking, is to build up the health of the child in order that he or she may become more capable of assimilating and benefiting by the instruction given in the ordinary schools, and at the same time to give such improved educational methods as the outdoor conditions make possible. With this idea in view, practically the whole school term is spent in the open air (except in bad weather, when open air sheds are provided) and for at least two hours of each afternoon every child is required to sleep or rest.

The school hours are from 9 A. M. to 7 P. M. each day, except on Saturday, when school closes at 1 P. M. Children are allowed to remain for games under the supervision of some of the members of the staff. The staff includes a nurse who exercises a general medical supervision, and is responsible for the weighing, bathing, etc., of the children. In addition, at each school, are a cook, a cook's helper and a caretaker, and one teacher for each twenty-five children. The spirit of sympathy, almost of *camraderie,* between the staff and pupils is a very noticeable and pleasing feature.

Incidentally the open air schools have afforded a field for interesting experiments, the results of which can be applied to the ordinary schools. The great advantages to be derived from practical work have been demonstrated. Every subject which

The working out of historical subjects. 3. The basket makers. 4. A model of Stonehenge, involving building from a plan. The model is used for a lesson in sketching.

could possibly be made practical has been taught in that way, including arithmetic and history.

The Manual Arts, however, occupy the most important place in the open air school curriculum, as the pupils on admission were often incapable of sustained mental and bodily effort and required a strong incentive to work, and prominence had to be given to educational work which called for bodily activity and encouraged resourcefulness and initiative. Handwork in all its phases, clay and sand, modeling, basket weaving, sewing, cooking, gardening, and the household tasks, therefore, occupy much of the children's time.

There are no set courses. The sewing consists of the making and mending of garments for the children to wear; assisting in cooking and serving the regular meals for the children and teachers is the work of the Domestic Science classes. Each child or pair of children has a small plot of garden to prepare, to plant, weed and cultivate. Nature study and the observation and description of natural objects at first hand are insisted upon. The children keep daily records of weather, wind, and temperature. There are many opportunities for the study of plant and insect life. They design and execute beautiful weather charts, and calendars for home use.

Naturally the conditions for modeling and drawing are ideal; in the study of animal life, the real objects are utilized, the cows, horses, and sheep in the neighboring pastures.

Modeling maps of the surrounding country, in sand, for geography lessons, play an important part in the school program.

The trees, birds, flowers, bits of landscape and even the common vegetables come in for their share in the art work, both in modeling and in sketching. Sand, clay, charcoal, crayon, and water color are the mediums used.

5. A geographical model, involving sand modeling and other constructive arts.
6. A lesson in outdoor sketching.

All these gifts of nature, including the beautiful color schemes of the sunsets, seen for the first time by the children who had been selected from the slums of London and Berlin, are object lessons never to be forgotten, and equal in educational value years of formal education.

During their five months' study the children learn that there is a sphere of life in which it is desirable to cultivate freedom and independence of thought and action, and another in which it is essential that this independence be sacrificed to gain some end which is desirable for others as well as themselves.

Physical improvements, in the majority of cases, begin after a very short period, and continue steadily until the close of the school. The children undertake their duties with the spirit of true citizens and have true delight in their varied educational work. There is no doubt but that they are vastly benefited by their sojourn in the open air school.

A long time will probably elapse before open air schools to any extent can be established in America, but the work of the crusade against the great white plague is bound to result in establishing such schools in all large cities,—first for tuberculous children—later on, we hope, for debilitated children, with a hope that the same rational methods will ultimately be used in the ordinary schools for the betterment of all children.

IDA HOOD CLARK

Supervisor of Elementary Manual Arts
Milwaukee, Wis.

THE USE OF FLOWERS IN EDUCATION

THIS article describes the methods used in showing flowers in the Newark, New Jersey, Public Library. In the term "flowers" we include not only the objects that are generally understood by the words cut flowers, but also leafing plants, branches of trees, shrubs, and stalks bearing fruits.

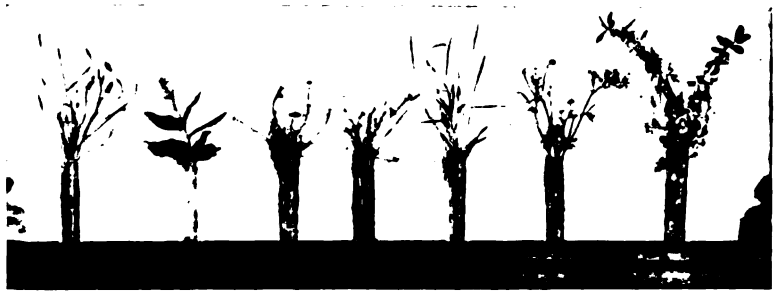
We use for holders, hydrometer jars, glasses in the form of cylinders, with flat bases, without ornament or decoration of any kind. The larger ones are ten inches high and two inches in diameter; the smaller ones eight inches high, and two inches in diameter. These may be bought of the Whitall Tatum Company, 46 Barclay St., New York, at a special library or school discount.

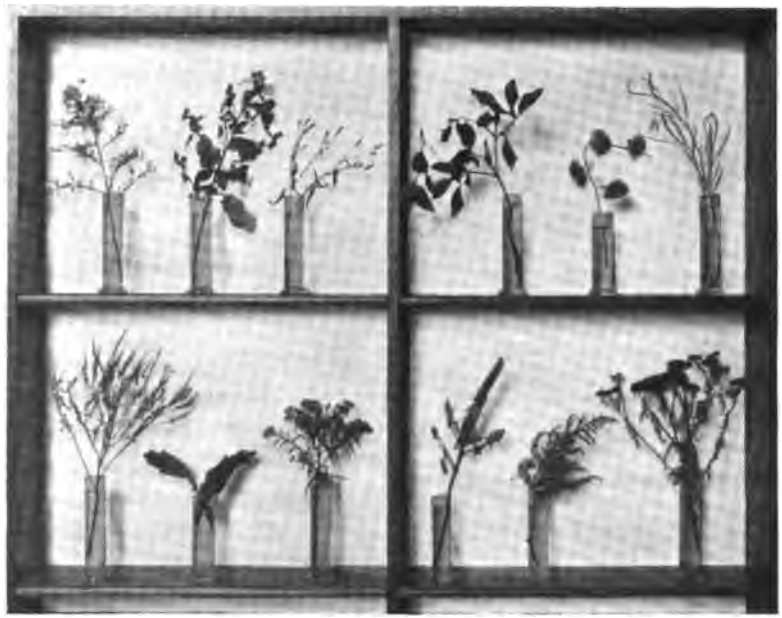
The work begins in the early spring, usually in April, sometimes a little earlier.

Members of the library staff bring in twigs and branches of shrubs and trees, and, as a rule, these specimens keep us supplied. Some things are obtained from the Shade Tree Commission of the city, which at certain times of the year is pruning many of the city trees. From the large bundles of prunings which they send, we select those most characteristic of the growth of the trees or shrubs from which they are taken, and also those which are the most graceful or striking in their manner of branching.

These are placed in the jars already mentioned, one or two branches only in a jar. The jars stand in a row, either on a table, a desk, a catalog case, or a shelf especially prepared for the purpose. The first and last mentioned arrangements give best results. In our children's room they are kept on a long table around which the children may pass; in the room frequented by older people, on a shelf built against a wall about four feet from the floor.

The elm, poplar, maple, birch, oak, button-wood, peach, tulip, cherry, plum, and larch are particularly attractive in their branchings, and their dark lines show very well against a plain





From an educational exhibit of wild flowers, Public Library, Newark, N. J.

white background; but twigs and branches from almost any tree look well as the buds swell. Care should be taken to avoid overlapping of specimens. Each branch should be a thing distinct in itself.

Labels of cardboard, about two by four inches, are used to name each specimen. Usually we give only the common English name. The use of the proper Latin name, with genus and species, is worth while in some cases.

This showing of branches without leaves and in the leafing stage is carried on thru March and April. The effect is very beautiful; the buds swell rapidly, and the growth to full leaf, and in some cases to flower, is most interesting.

In late April and May growing plants, usually wild flowers, are shown. These are brought in with soil about their roots and set in rich earth, in small, plain, dull green bowls, not much larger than coffee cups. The anemone, buttercup, blood root wild ginger, hepatica, bluet, and marsh marigold all transplant to great advantage. They are labeled like the others.

In June, July and August, sprays of common wild flowers take the place of plants, and are kept in the hydrometer jars. Specimens chosen are usually at least 12 inches long, as smaller ones are not very effective. The red wood-lily, meadow-sweet, painted cup, cardinal flower, tansy, black-eyed Susan, steeplebush, blue lobelia, pickerel weed, turtle-head, butterfly weed, butter and eggs, and milkweed are found to be especially well adapted for these displays. Wild carrot, boneset, turtle-head, yarrow, and the common daisy, while not contributing much in color, give good effects in line and form.

In September the fruits of wayside plants are shown. The word "fruit" as we have used it is very broad in its meaning, covering the pod of the milkweed, the boat-shaped seed of the rattle box, the red berries of the dogwood, the vivid pink and

green of the poke-berry, the large nut-shaped fruit of the stramonium, the gorgeous red berries of the mountain ash, and many other delightful specimens.

The special value of these particular exhibitions of fruit, aside from their beauty of color and form, lies in the fact that few persons take the trouble to observe flowering plants after their period of conspicuous bloom is past, and the very striking and beautiful aspects of ordinary wild flowers gone to seed come to most as a delightful revelation.

This fruit display can usually be continued thru October and into November, as the fruits and seed-pods are very lasting and retain their beauty and freshness long after ripening. The curious popping fruit of the witch-hazel ends this autumn display, unless berries and the fruit of evergreens can be found. These latter will, with care, last to the Christmas season, when holly and mistletoe are obtainable.

Maud Peterson's "How to Know the Wild Flowers" is the best, if not the only popular book on this subject. It classifies wild fruits by colors only, a very acceptable classification to the non-botanical, and is a most useful handbook for out-door trips.

In all these displays the purpose is not to use flowers as a means of decoration—tho that end is gained and very acceptably, as thousands of our visitors can testify—but to bring out the beauty of flower, branch, fruit, or of the whole plant; to call attention to the individuality of stem, leaf, bloom and fruit; and to interest observers in plant life as a whole. No masses of color are used. To bunch flowers together is contrary to good taste and nature, almost always gives commonplace and ineffective results and speaks of wantonness and extravagance.

Foord's book of colored plates of flower design is an admirable illustration of the theory on which these little exhibits are based.

The art of arranging flowers is a most interesting one. To acquire skill in the art requires many years of study and practice, unless one has special taste in this direction, and even then there is much to be learned by observation and experience. At the root of the whole matter lies the principle, long since discovered by the Japanese and exploited more fully and more carefully by them than by any other people, that the beauty of the flower does not rest in the color alone; but in the manner of its attachment to its stem or branch, the character of the stem itself, with its joints, its tendrils, its leaves, its peculiar bendings, curvatures and all the other things that go to make it distinct from the like part of any other plant. To the discriminating, one experiment is sufficient to demonstrate how much more beautiful one twig or small branch from the plum tree with few blossoms on it, or one flower stalk with all its characteristic appendages, bearing at its summit one single flower, will seem, than any crowded bunch of branches, twigs or flowers can possibly be.

The work above described is done for our Library by Helen Peters Dodd, who has a wide knowledge of plants, shrubs and trees. She has furnished the facts upon which this article is based.

JOHN COTTON DANA

Free Public Library
Newark, N. J.

DAMASCUS INLAYING

ALONG one side of the Great Mosque in Damascus runs a narrow, dusky street, roofed over, and with a predominating resinous smell. It is one of the streets of the wood-workers where much beautiful inlaying is done. Here you can pause just out of reach of a passing donkey or camel and watch a man turn out all sorts of queer things using his foot to steady his chisel while his hands turn the lathe and guide the wood.

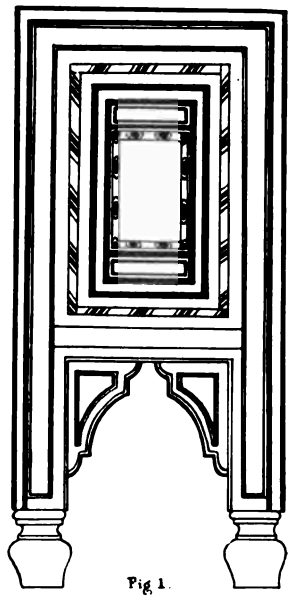
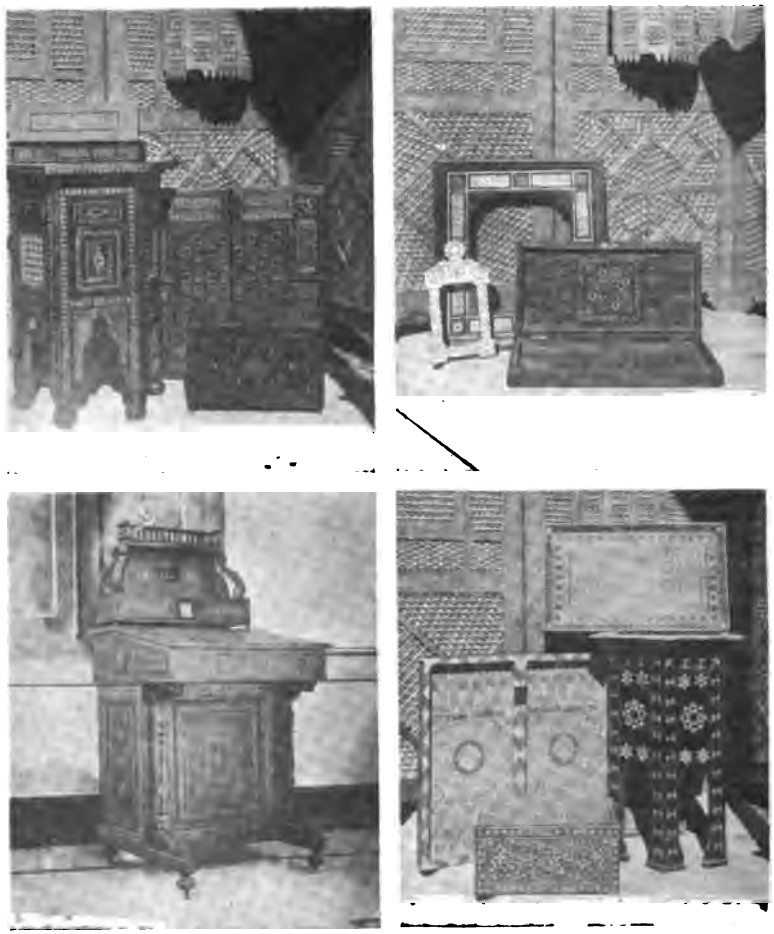


Fig. 1.

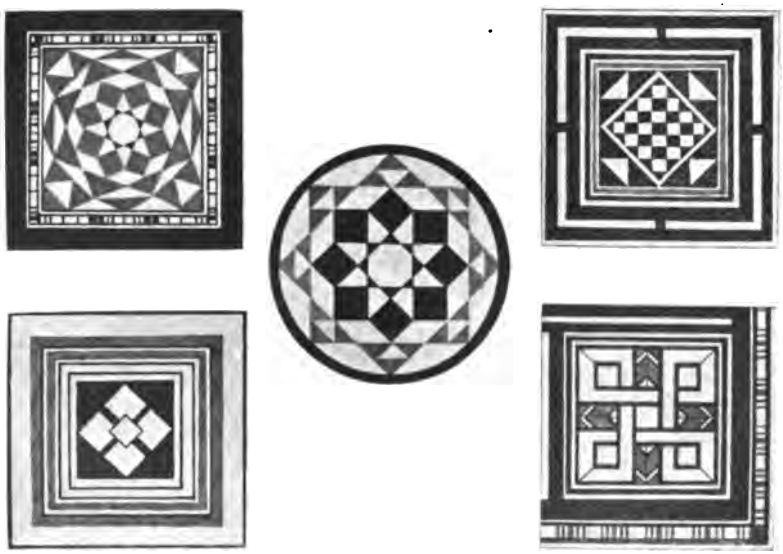
"How interesting! How cleverly he works!" you think, "but that would not be a practicable way to do wood-turning in America." The same general criticism might apply to the oriental inlaying. It is interesting; it is cleverly done; but the method of construction and the very media could not be entirely the same in the occident, especially in the connection in which we intend to speak of it, namely, school crafts. Our object is to touch upon a few features of wood inlaying such as is done in Damascus which might serve both as object lessons and warnings and which also give suggestions in the fields of construction and design.

The details of construction are not of great importance to us from the standpoint of practical use in the manual training room. The all-wood inlaying, done in small, delicate pieces, is constructed in a manner similar to that taught in many of our high schools, namely, fastening layers of thin wood and then sawing thru to procure fancy cross-sections. There is a second even more common kind made of pearl shell pieces cut and set into the wood to a depth of about an eighth of an inch. The



Inlaid work from Damascus. 1. Inlaid tabouret, boxes, and checkerboard. 2. Inlaid picture frame and backgammon board. 3. A desk. 4. Backgammon board, tray, box, and tabouret. Photographs furnished by kindness of Andre Terazi & Sons, Beirut, Syria.

pattern is usually incised with a veining tool and then silver wire about 1-16″ in width is hammered into the cuttings. The pearl is then set in close inside the wire which serves also for ornamental scrolls such as are seen in Figures 9 and 10. There is still a third



Figs. 2, 3, 4 (the circle), 5, and 6. Geometric designs taken from the desk shown in Plate III.

style of inlaying less frequently seen than the two former but in some respects by far the most beautiful. It is of bone inlaid usually on walnut. From its blank, unpreposesssing exterior one would never suppose that the shop of the master of this craft contained such charming pieces of cabinet work decorated not over elaborately with delicate scroll designs in cream color, all very accurately cut. In Damascus, mother of so many arts,

the pearl inlaying is often done by pitifully small children who work in the dirty, dark Sük, day in and day out.

Neither the varieties of wood, nor the pearl shell, nor the

Fig. 7. Detail from a back panel of the desk shown in Plate III. The original was a six-inch square.

tools for the inlaying are at hand in all our school equipments. Moreover one can raise doubts as to the legitimacy of any attempt to imitate oriental inlaying in an American manual training class. The result ought to be either a caricature or an improve-

ment on the original which would be western in effect. Exactly how then may we utilize this beautiful eastern craft in connection with school work?

First: in the field of construction, as an example of neat work the all-wood inlaying is unexcelled. The surfaces of any of the objects shown in the plates are, in spite of the thousands of fragments which compose them, glassy smooth to the touch. The checker boards, frames, boxes and tabourets are perfectly jointed and highly finished on all visible surfaces. It would be worth while to have a specimen of this work to show a class the results of careful construction.

The real oriental work does not look over-ornate except when the design is bad, as in this instance.

The wood inlaying is, from its very nature, most beautiful in color. There are as many possibilities for variety in hue as there are kinds of wood, yet with all there is perfect harmony in the result. It would be quite possible to obtain delightful effects by applying some of the oriental designs in water color or stains, keeping strictly to the range presented by the colors of finished woods.

This brings us to the second and more important use of Damascene inlaying,—as a source of a great variety of design.

The geometrical designs offer at once the more enticing field. The oriental has a natural taste for straight line design, an instinctive feeling for good composition. This shows itself in textiles, rugs, the best examples of architecture and even in such ordinary

objects as baskets and the cheap native pottery. Inlaying is no exception. In Figure 1 we have the side of a tabouret reduced to simple terms. A similar design in detail can be seen in Plate I which contains several excellent examples of all-wood inlaying in purely straight line design. The border around the checker

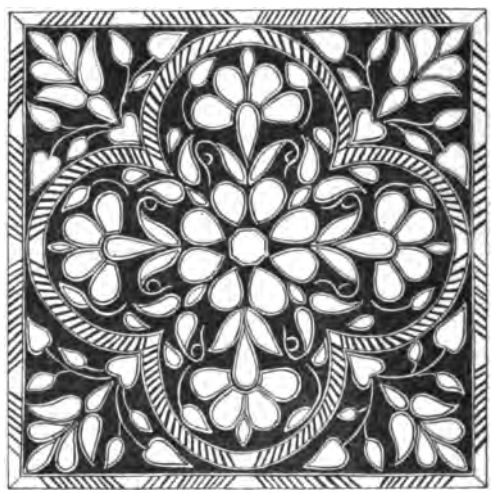


Fig. 9. A detail from a table-top showing the successful use of the curved spot.

board, the interior of which is shown in Plate II, and the picture frame which is partly inlaid with bone, are particularly beautiful examples. Plate III gives only a faint suggestion of the richness of design on a desk. On this piece of furniture, while the effect is symmetrical, there are scarcely two details of the design exactly alike. Figures 2—6 are four squares taken from the top and a circle from the curved shelf support. None of these details are in the original more than 1 1-2″ in width. Figure 6 is a particularly

neat little corner design. Figure 7 is taken from the back panel; in the original it is about 6″ square. Considering that each variation of tone in the sketch represents a different piece of wood, you begin to realize how elaborate is the workmanship.

The interior of a room in the German consulate at Damascus showing the effect of ornate inlaid work.

The pearl inlaying seems to lend itself more readily to irregular, curved designs, altho the small frame in Plate II and the tray and backgammon board in Plate IV show the possibilities of geometrical design. The tray is a lovely affair in white and dark brown, as is the table below it. The predominating tone in the board is silver gray with here and there gleams of rose or green. It is an instance of pleasing design without strong

contrasts. In the illustrations, page 1058, and in Plate V, the German Consulate, are many instances of pearl designs applied to tabourets.

The pearl inlaying offers many suggestions for arrangements of "spots," a kind of design many children love to try. There are, however, dangers that lurk in it. Somehow the real oriental work does not look over-ornate except when the design is bad. An example of this is shown in the segment of the table-top, Figure 8. The spots seem dropped on without much reference to each other. On the other hand the box in Plate IV and the detail from a table top, Figure 9, represent far more successful use of the curved spot, as also the table side in Figure 10. (Tail piece.)

In all the sketches some attempt has been made to show the irregularity which characterizes all oriental art. The finish is excellent but frequently when you stop to examine details you find they are far from accurate. Figure 8 shows this at a glance. Of course the finer the work the more regular the design. Yet any piece, however irregularly made, expresses a certain amount of painstaking care. Are they therefore not worth while to show to ever busy, rather careless young America?

LANICE PATON
Beirût, Syria

THE ART HERITAGE OF INDUSTRY*

OF all the instincts of man none is more deeply rooted than his desire to beautify that which he possesses, to decorate his person, his weapons, his home, and all his belongings. In the words of Carlyle, "This desire is the first spiritual longing of the barbarian." From the time of the cave-dweller man has sought to spell out his soul in line and pattern. As he has struggled upward he has in every age left the results of his desire in temple and tomb, in jewel and picture, in carving and in clay. This legacy is the aesthetic inheritance of the race, and one of the ends of education is to reveal this aesthetic inheritance to each in due season, that each may come to know the joy of the workers who have willed the best products of their emotions to posterity.

It must not be thought, however, that comprehension of all that this gift means is to be gained at a glance; all the beauties of the arts of past generations are not to be read by first intention. Without understanding, the heritage is but an empty one. To interpret its meaning is the business of education, and to bring a nation to know its value is to educate that nation to art. This is an important and a serious business.

Art permeates our life everywhere. It decorates our persons, plans our homes, lays out our cities, erects our monuments, and ramifies in a thousand ways thru every channel of trade. It must be plain, then, that it is a necessity and not a luxury. Born of man's need it has served as index of his achievement in every past age. The history of civilization may best be read in art, for no nation has ever risen higher than its art. Our gauge of people's past: of the Egyptians, Minoans, Etruscans, of the Romans, Gauls, Norsemen and of all the mysterious kingdoms of the East is gotten from their search for beauty. Art has been the national thermometer telling to what heights skill and culture

*From an address by Dr. James P. Haney, delivered at the Commencement Exercises of the Pennsylvania Museum and School of Industrial Art, Philadelphia, June 3, 1909.

have risen in the workshops of the world. No material, whether metal or bone, clay or glass, flax, wool or silk, but has been dignified by art; and every museum has its triumphs of Etruscan filigree, of Greek marble and Roman bronze, ivory of India, rug of Persia, silk of China, damascening of Spain, carving of Flanders, and lace of Italy. Every material which could be woven or beaten, tempered or spun, chased or fretted, has at some time had lavished upon it the lifelong study of master craftsmen. Its secrets have been read and its uttermost difficulties made the delight of minds that rejoiced in learning new ways to bend it to art's purposes.

Manifold lessons are to be learned by those who will study faithfully the teachings of the master workers who have shaped our heritage. Art has meant many things to many men. Each in his own way has told of his search for beauty and each has learned in time that the beauty which he sought lay in himself. Therein is art's great secret; we can know no beauty we do not feel. Beauty is our own response to that which stirs us. It is "the thrill in us."

The old masters knew no distinction between an art fine and one not fine. All arts were fine to them, and all were arts applied. The picture took its place as decoration and the painter of it did not scorn to work in metal, in clay, in wood and in stone. The earlier artist was always a craftsman who understood well the significance which lies in the words of Morris, "To give pleasure in things we must use, this is the first aim of decoration; and the second, to give pleasure in things we must make." They understood, too, that there is no common thing, no humble bowl, no hinge or key, but what could be loved into beauty. They show us in their work that beauty depends not upon elaboration but that there is a luxury of taste far finer than the luxury of wealth.

Thru art, industry has preached many sermons. Every religion has called upon it for aid, and every faith has seen its hopes made visible in temple and altar, in statue and aspiring pinnacle, in glowing glass or corded tapestry. Patriotism speaks in the proud Colleone on his huge charger, majesty in the great Zeus of Phidias, wisdom in the Moses of Michelangelo, valor in the Farragut of our own Saint Gaudens. Truly it may be said there is no universal language save only art. It has its own free-masonry and every man who comes to read its heritage learns how clearly each worker has spoken of his trials and his triumphs to those who succeeded him. Mute to the stranger, his handiwork to the initiate is eloquent: "After me cometh a builder, tell him I, too, have known."

We live, however, in a pragmatic age, one which tends to sum the value of all teaching in one sententious phrase, "But what's it worth?" To every man, to every business corporation, to every city and state, art is an asset of high and definite value. The humble clerk dressing a shop window, and the wealthy firm lavishing thousands yearly on its advertising, must each employ art's principles to succeed. The beautiful city draws heavy interest on its investment in the thousands that come to enjoy its parks and avenues, its sightly shops and impressive buildings. The state which has fostered the art instincts of its people fosters at the same time their capacity for enjoyment and their creative ability. In the commercial war which nations wage ever more keenly, it is not the man behind the gun, but he behind the designer's pencil who leads forward toward supremacy. A glance at the balance sheet of the world will show how for years France has made the civilized earth pay tribute to the skill of her facile draftsmen, and while America still possesses astounding wealth in raw material, still does she turn to old-world markets there to purchase that same material rendered a hundred times more

valuable by the touch of art. What shall it profit a nation that possesses the treasures of earth if it cannot refine them to its highest needs!

Well, indeed, have the peoples across the seas learned the economic value of art. Following the lead of France—England, Germany, Austria and the Lowlands now vie with one another in perfecting schemes of art education which shall place them in a position to compete with the designers of Paris, of Lyons and Marseilles. Each great international fair sees anxious groups of statesmen, merchants and schoolmen scanning the latest products of national competitors and hastening back to revise and perfect their own schemes of instruction. Industrial art schools which fifty years ago appeared few and far between upon the map of Europe now dot it in the pattern of the cities. These schools are not mere training grounds for painters or illustrators, but are practical workshops where the artisan of any one of a score of crafts may receive teaching in the things which will make his product more beautiful and more valuable.

Of the lessons thus read us we must take heed. In Morris' terse phrase, "We must not have art for the few any more than freedom for the few." Art requires a proper atmosphere in which it can grow, and nothing less than early and wide-spread training can produce this atmosphere. A few artists do not make an artistic people, and if the American people are to advance in aesthetic sense and creative power, that growth must see its seeding in the public schools. The art taught in these schools should be an industrial art, an applied art—decoration done for service. Not all can be taught to be artists, but all can be taught to appreciate. All can be taught art's principles, not by talking about them, but by practising them, seeking fine lines and harmonious color schemes and using these to decorate needed forms. This training of the schools is already well begun, but must go

much further. It means not only the development of the talents of the skilled, but the creation of that sympathetic audience without which the work of the great artist is impossible. It means higher standards of taste for the entire public. It means for the artist-artisan one necessity of his very existence—the patron, the purchaser.

Schools, many schools, for the craftsmen are also necessary. In these, thru a thousand lessons, must be taught the art heritage of industry. Thru such teaching can best come a deepening reverence for technical perfection and a deepening understanding of the motives which have led and must still lead to the finest self-expression. Their students must learn that all great art is but the voice of a great personality—that style is the man—"that to paint like Velasquez one must be like Velasquez." They must learn that no man, and least of all the artist-artisan, can live by bread alone; that originality is not the mere recombination of ancient forms, but the new telling of old truths in line and pattern seen afresh in mental vision. Behind this vision lies the life of the spirit, a delight in nature and in all her works—a feeling religious that makes one praise God thru one's craft. Only thus thru striving for perfect utterance can one realize and draw upon the force which in art has made our heritage what it is. Only thus can one know what it means to work in the spirit of service—to joy in labor.

JAMES PARTON HANEY
New York City

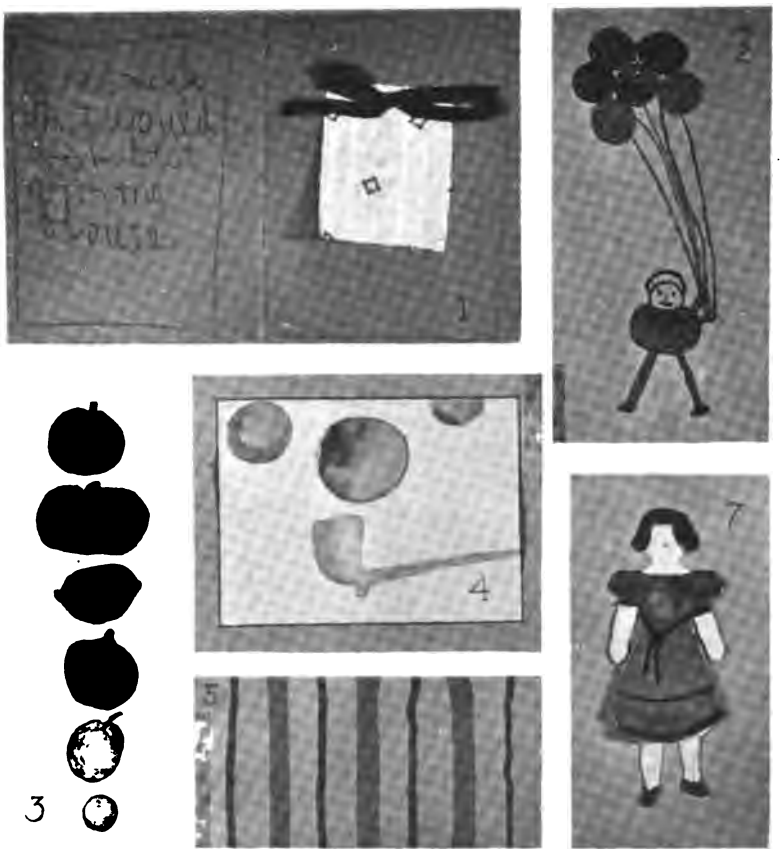
ANNOTATED LESSONS
SEPTEMBER

COLOR and the drawing of the beautifully colored objects Nature furnishes so freely in the fall have now become, quite universally, the topics for children to consider upon return to school after the long vacation.

Notwithstanding all that has been said and written on the subject of color, the Editor of The School Arts Book cannot bring himself to believe that theory and scientific classification, and accurate record of vibration, and all the rest of the adult reactions upon this infinite problem, have very much to do with the teaching of color in the elementary grades.

Our problem resolves itself into this: To lead the child to appreciate beautiful coloring as soon as he can. My own experience and observation force me to believe that the growth in power to discriminate follows this order: (a) Between one strong color and another; (b) Between lighter and darker tones of a color; (c) Between warmer and cooler hues of a color; and that such a degree of power in discrimination as these terms imply is prerequisite to the appreciation of (d) complementary colors and their interrelations. Of course, we can teach children to juggle with words in almost any order, and to follow dictation in almost any grade; but to secure a genuine, intelligent appreciation of fine qualities of color is another matter.

In the nature drawing similar considerations determine our course: A child can appreciate the general direction of a line of growth long before he can perceive subtleties of curvature; he can appreciate the fact that a branch makes a narrow or a wide angle with its parent stem, before he can perceive fine rhythms of measure in the lengths of the parts; he can record relative proportions of parts before he can delineate the anatomical details of structure; he can put down approximate local color long before he can suggest the charming play of light, shade, shadow, and reflection, or the "envelope of air."

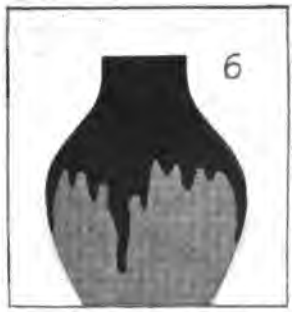


The lessons here illustrated will be arranged in what seems to me to be a reasonable order, from easiest to most difficult; but no attempt will be made to locate them by grade, except as specified upon the drawings themselves. When the grade in

which a drawing was produced is given, or the age of the pupil is given, such information will appear in the text.

COLOR

1. A lesson in choice of color. Original by Irving Howe, aged six, Marlborough, Mass. Each child was given a piece of figured muslin with a pattern in one color on a white ground, and was asked to select from some samples of ribbon that which most nearly matched the color of the spot upon the muslin. The text hints at the practical application.



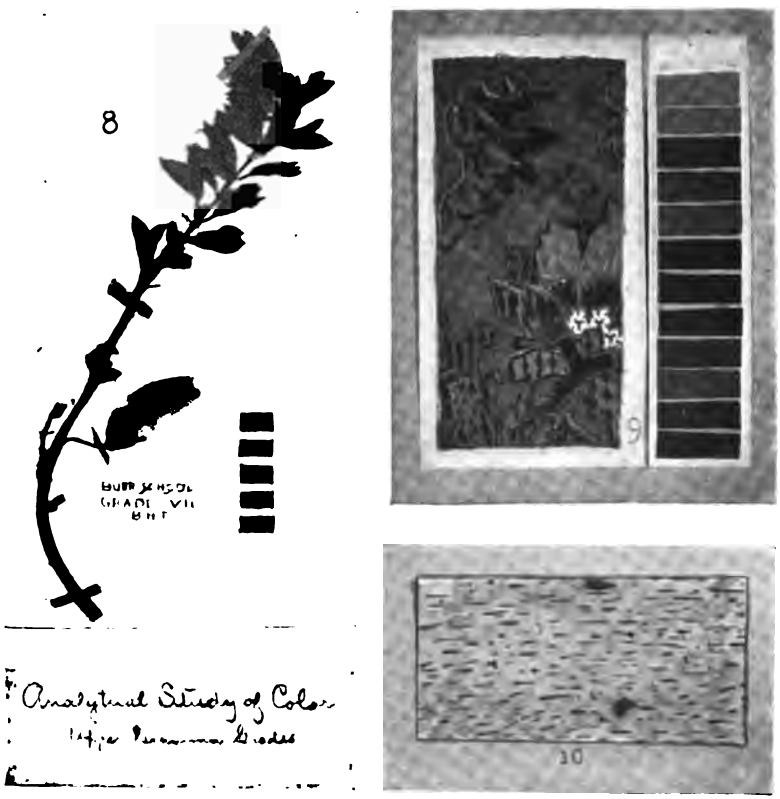
2. A memory drawing of the six prominent colors of the spectrum, by Pearl Knox, II, Warsaw, N. Y. The original represents the balloon man at the fair and was drawn in colored crayon.

3. A review of the standard colors. A drawing of autumn fruits and vegetables, by Helen A. Day, I, Hopkinton, Mass. The original is in colored pencil. It will be seen that some attempt has been made to record not only the colors, red apple, orange pumpkin, yellow lemon, green quince, blue plum, and purple grape, but to indicate in a general way the relative sizes of these objects.

4. A review of the standard colors with a suggestion of their running together as seen in the spectrum. The original is by "A. C." Unfortunately school and town were not recorded. The bubbles were painted first with pure water. Into this the six pure colors were touched and allowed to run as they would. The composition shows adult control.

5. An exercise in the representation of striped cloth showing a tint and a shade of one color. The original is by Rena Riley, II, Newton, Mass. This work was done several years ago under Mr. Berry who gave the lesson not merely as an exercise in color but as a means of teaching the proper holding of the brush in the making of stripes. The narrow dark stripes were of pure color. The broader stripes were the same color diluted.

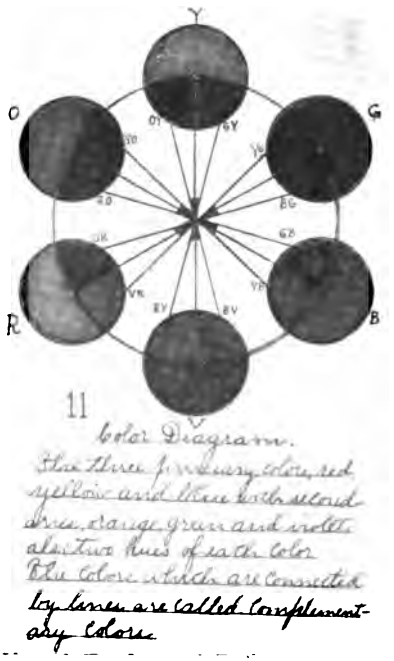
6. An object showing two tones of the same color, artist unknown. The original is a vase form cut from paper. The whole form was first tinted, and



when it was dry the shade indicating the drip glaze was added. This exercise might have illustrated two hues of color applied to the vase form.

7. An application of two or more hues of color in dress. The original is by Ruth Barnard, III, Natick, Mass. The figure of the doll was traced from

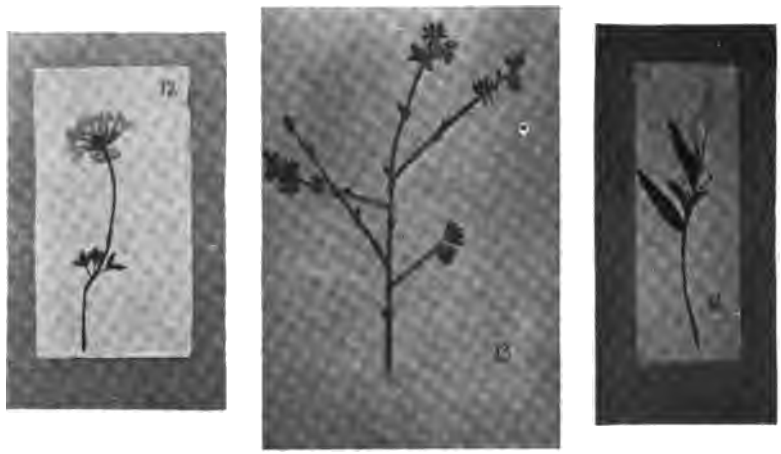
a pattern and cut. The shape of the dress was traced upon a sheet of paper folded to form the shoulders. The complexion of the child (color of hair, etc.) was chosen by the little artist, and the dress colored to harmonize therewith.


Y
O
G
R
B
11
Color Diagram.
The three primary colors, red yellow and blue both second ones, orange, green and violet, also two hues of each color
The colors which are connected by lines are called complementary colors.

In this particular case the child had orange-yellow hair, russet slippers, and yellow dress with yellow-green trimmings.

8. A plant form analyzed for color. Original by Bridget Franey, VII, Newton, Mass. For opening a pupil's eyes to see variety in color, a better exercise than this could hardly be invented. There are three variations pos-

sible. Perhaps the best is the matching up of the colors of all the principal parts of the plant as closely as possible by the use of a Milton Bradley sample book of colored papers. The impossibility of matching certain colors by these papers becomes evident to the student and leads naturally to the second method, namely, the record of the principal colors in water color. To accompany these records either in paper or water color, a drawing of the plant in pencil is sometimes made. A third method is illustrated in the sheet reproduced herewith.



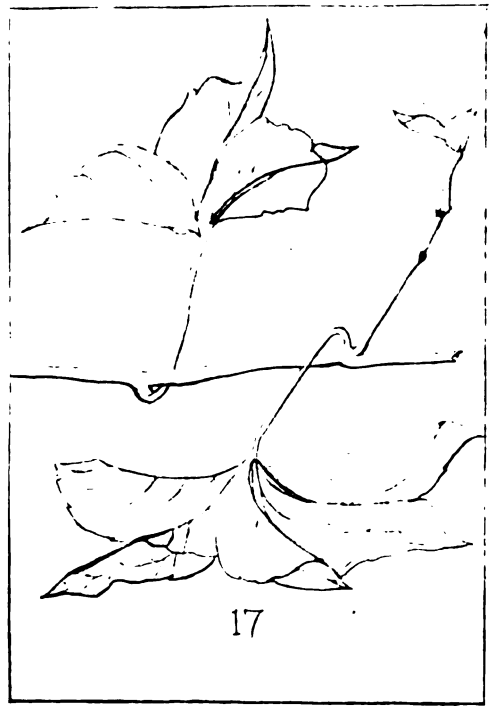
The plant itself is pressed and fastened upon the paper by means of small gummed strips. The color scale of the plant is then added in water color. As the dried specimen fades, the two do not correspond but the water color scale serves to revive the memory of the original. This sheet was made under the direction of Mr. Berry.

9. A lesson in color analysis from a harmoniously colored piece of cretonne. The original is a bit of seventh-grade work by a young lady named Annie, school not given. A Milton Bradley sample book was used for the matching of these colors, and little slips clipped from the sample book produced the scale. There is no quicker method of teaching a complex harmony of color.

10. A drawing from a piece of birch bark, illustrating the combination of colors of low intensity. The original is by Sadie Taylor, IX, Lawrence,

15

Mass. Stones, lichens, withered leaves, some of the moths, and the larger birds, furnish ideal material for lessons of this sort. The children learn to see that



17

the colors cannot be produced by mixing black and white with other colors, but that two or more hues of color, often complementary hues, must be mingled to produce those subtle effects.

11. A color diagram illustrating analogous groups of color, complementary colors, and complementary

groups of color. The original is by Edith Moore, VIII, Avondale, Chester, Pa. A study of the diagram will indicate its plan sufficiently. It is an ingenious device, and in the original, well worked out in color.

PLANT DRAWING

12. A drawing in colored pencil by Albert Webster, aged 8, Belleville, Mich. The sheet is not well balanced, but the drawing does show an appre-

ciation of the main lines of growth. What more can one legitimately hope for in the lowest grades?

13. A drawing in pencil and colored crayon by Frank Mullally, Randolph, Vt. The angles at which the stems diverge have evidently been thoughtfully considered.

14. A water color drawing by William Joslyn, II, Haydenville, Mass. The drawing is evidently from the peppergrass, but no attempt has been made to indicate the subdivisions of the head. The emphasis was obviously upon the relative sizes of the different parts.

15. A drawing in water color from a spear of grass, by Konrad Iverson, III, Longmont, Col. An example of a well-balanced sheet.

16. A drawing from the pink, by Xanthus Homer, VI, Cheltonham, Pa. An example of a well-balanced sheet showing actual and foreshortened shapes

of rhythmic masses. The paper was a middle value gray. Chinese white was used for the flowers.

17. A pencil drawing from a spray of woodbine by Stanley Marshall, aged 13, Danvers, Mass. The drawing shows careful attention to details of structure.

18. A decorative arrangement from the bean. The original, in related hues of color of low intensity, by Thomas Carson, aged 15, Westerly, R. I., was especially beautiful in tone. Hence it received a first prize in September, 1909. The field is rather sparsely settled!

19. A decorative arrangement from the woodbine, by Clayton C. Shangraw, aged 13, Danvers, Mass. The original in water color was a little crude in coloring, but the beauty of line in the spray was so well reflected in the drawing, and the structural details were so carefully studied, that the drawing received a second prize in September, 1909.

Nearly all the drawings received prizes in some Guild Contest.

H. T. B.

HIGH SCHOOL

FREEHAND WORK

The satisfactory rendering of drawing in September will depend to a considerable extent upon the preparation for it in June and during the summer vacation.

The September outline should center, as before, around the careful study of nature forms, carrying these studies to a higher plane than was possible in the first year. During the closing weeks of June advise the pupils and arouse new interest in the real possibilities of the camera as an artist's instrument rather than a youth's toy. Of all the cameras that will snap between now and next September, how many will record a really beautiful arrangement of mass or line? Why should there not be a distinct change for once if the appeal to the pupils is sufficiently clear and strong?

Would it not be possible to interest high school pupils sufficiently in nature's beauties to have them try their cameras on all sorts of beautiful separate leaves, flowers or fruit, individual stalks and sprays, spider's webs with dew, various shells, moths, butterflies and beetles? The wonderful field here presented has hardly been touched.

Even tho the photographs themselves were not the success hoped for, the result of the search for beauty and the effort to capture it would be of lasting benefit to the searcher and an inspiration in any future work involving nature forms.

For those without cameras, and for those possessing them as well, are innumerable beautiful forms to be caught with the blue print frame and paper. A brown print paper known as "Van Dyke" and sold by Eugene Dietzgen, East 23rd St., New York City, produces beautiful results, either as white forms on brown, or brown silhouettes on white.

Those who can catch butterflies may mount them on small pine boards just large enough for the spread of the wings. A groove should be cut for the body to occupy and the wood painted white or covered with white paper before mounting the specimen. A glass is finally passe-partouted over the whole and a valuable piece of drawing room material produced. Separate butterfly wings, beautiful feathers or other thin objects can be successfully preserved between two pieces of glass whose edges are bound together by gummed tape. Use old photo negatives for this.

There is inspiration enough if the desire can be aroused to find it in all that will lie about us during the next summer. From this material which real students will be glad to procure before September, see what drawings can be made in the opening weeks of the next school year.

HAROLD HAVEN BROWN

Stuyvesant High School
New York City

MECHANICAL DIVISION

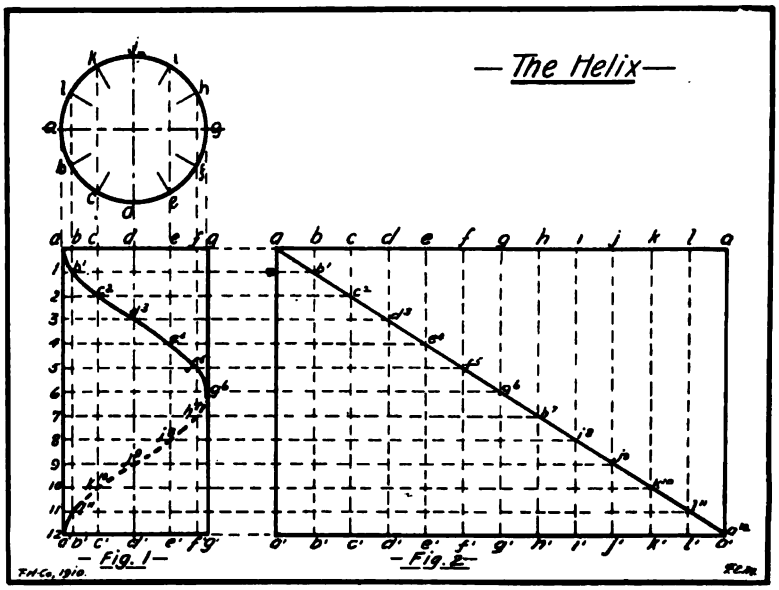
SECOND YEAR WORK

(Copyright reserved by the Taylor-Holden Company)

The second year course in mechanical drawing should be arranged to meet certain of the shop requirements in technical and manual training high schools and it must also cover more or less work of a theoretical character. Much of the theoretical drawing can be directly applied in the drawing of machine details for use in the patternmaking shop, and the work in the forge shop offers excellent opportunity for design in decorative and artistic iron work. A number of the drawing plates which are outlined in this course have been planned with this object in view, but as many high schools following these

outlines are not equipped for shop work, their needs will be met by the more theoretical part of the plates suggested during the year.

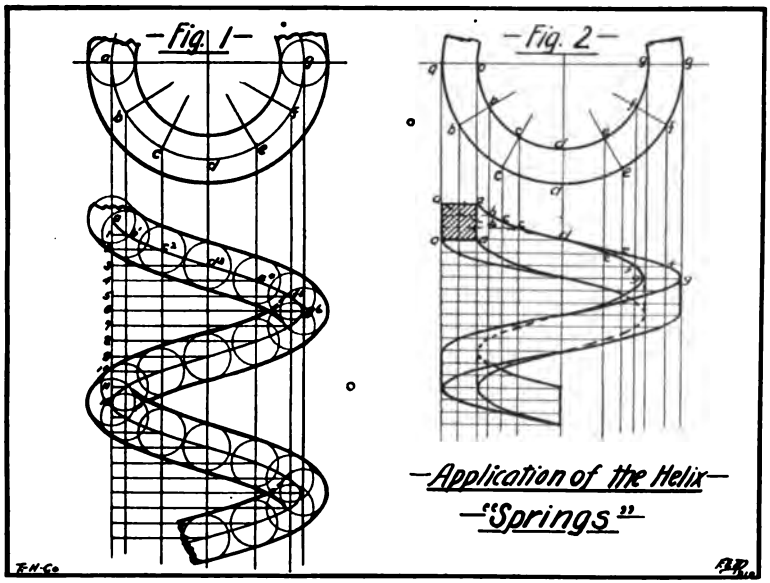
It will be necessary to refer to several text and hand books in connection with some of the plates and it is suggested that the following books be kept in the mechanical drawing room for this purpose.



1. American Machinists' Handbook. McGraw-Hill Pub. Co., New York.
2. Mechanical Drawing. A. H. Ellis Co., Boston.
3. Machine Drawing. Anthony. D. C. Heath & Co., Boston.
4. Notes for Mechanical Drawing. Taylor-Holden Co., Springfield, Mass.

In nearly all drawings of machine details it is necessary to represent screw threads. While these representations are apt to be conventional, it is very essential that the pupil should know the source of these conventions. For this reason it is best to commence this course by a study of the helix and its application in the representation of springs and screws.

Plate I. The Helix The "helix" is the path of a point traced on the surface of a revolving cylinder as the point moves along a line which is parallel with the axis of the cylinder, at a uniform rate of speed, having some regular prescribed proportion to each revolution of the cylinder. The distance between



any two points in the path, measured parallel with the axis of the cylinder, is called the pitch of the helix.

Take a cylinder (Fig. 1) and a rectangular piece of paper (Fig. 2) with the side a-a equal to the circumference and the side a-a′ equal to the height of the cylinder. Draw the diagonal and then wrap the paper about the cylinder. The curve which the diagonal takes is called the helix, and a-a′ is called the pitch of the helix.

To draw a helix of one turn with a diameter of 2 1-2″ and a pitch of 4 1-2″, first represent a cylinder of these dimensions. Divide the end view of the cylinder into any number of equal parts and the pitch of the helix (represented by the height of the cylinder) into the same number of equal parts. Letter

or number the points of division in both views to correspond. At the intersections of projection lines from the points in one view drawn perpendicular to projection lines from the corresponding points in the other view, are the various points in the path of the helix which may be lined in with the curved ruler. The helix is the curve of the screw thread and is used in making the actual representation of the thread.

Plate II. Application of the Helix. Springs. In making the drawing of the Coil Spring, which is made from round material, it is only necessary to lay out the helix for the center line of the spring, Fig. 1. Then by drawing circles equal in diameter to the size of the round material the outside helices may be drawn tangent to these circles. When square material is used then it will be necessary to draw the four helices by projection as represented in Figure 2.

Alternative problems for drawing Plates I and II.

1. Draw a helix of one revolution about a cylinder 2 1-2″ diameter and 4 1-2″ high. Make drawing using the development of the cylinder.

2. Draw a helix of 1 1-2″ pitch, making three revolutions about a cylinder 4″ in diameter. Make drawing without using development of the cylinder.

3. Application of the helix. Make a drawing of a coil spring which is made of 3-4″ round material, the spring to be 4″ outside diameter and the pitch 2 1-4″. Length of spring, 6 3-4″.

4. Make a drawing of a coil spring which is made of material 1-2″ square in section, the spring to be 1 1-2″ pitch, 4″ outside diameter, and 4 1-2″ length of spring.

Questions.

What is the length of the helix in problem 1?

What is the height of the cylinder in problem 2?

What is the length of the material used in the spring called for in problem 3?

What is the inside diameter of the spring in problem 4?

FRANK E. MATHEWSON

Technical High School

Cleveland, Ohio

THE WORKSHOP

WOODWORKING

MODEL YACHT

My plans this month are for a yacht with rigging that can be taken down and packed. It is a good sailer.

CONSTRUCTION. THE HULL

There are two practical ways for constructing the hull—either from a solid block of the required size, or from several thicknesses of boards. The first method is the more difficult to cut for the center must be chiselled and gouged away, requiring great care to get an even thickness and not to perforate the sides. I have chosen the second method because it seemed better adapted to sixth and seventh grade boys who are apt to be more interested in this model than those of the eighth and ninth grades. In my plans two pieces of 1 1-2″ pine plank form the hull; a third piece made from 7-8″ pine planed down to 1-4″ at the stern, forms the deck. The lead keel and rudder complete the hull.

First, cut the deck plan from paper, folding it lengthwise and cutting according to dimensions given in Figure 2, the greatest width, 10″ from the bow. This is also the plan for the upper section of the hull. Cut the pattern for the lower section same width, but 17″ long, B, Fig. 5. These pieces are cut out with saws and spoke shave or plane straight thru the wood—what overhang there is to bow and stern is done later. The hull pieces will now look like F, Fig. 5, edge view.

Mark the opening in the upper piece, A, Fig. 5, 1-2″ smaller all around than B so that B will overlap. The wood is removed by first boring a series of 1-2″ holes then cutting thru them with a key-hole saw, finishing with rasp or spoke shave.

Fasten A and B with thin screws thru the sides to hold temporarily.

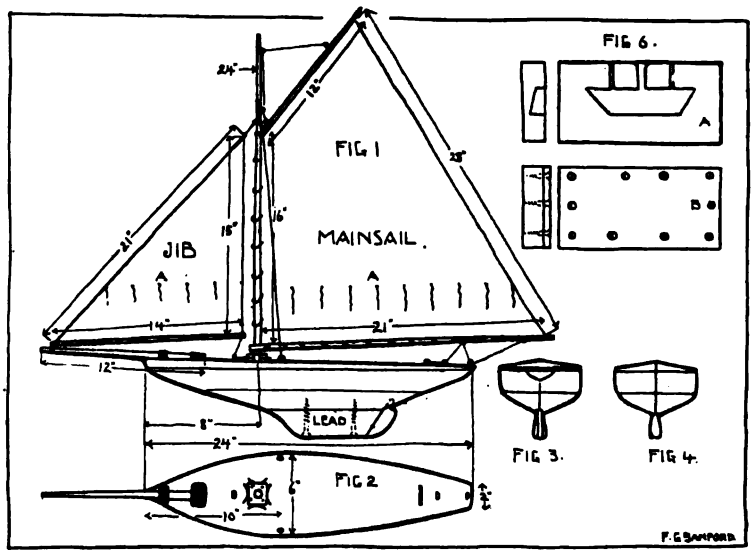
Saw the slants of bow and stern and shape carefully to the form shown in Figures 3-4 and sectional view, E, Fig. 5, leaving sufficient flat space, 3-4″, to attach the keel on the bottom. Take apart the pieces, A B, and filling the joints with white lead, screw them together. Then fasten the deck with smaller screws, filling all joints thickly with white lead. File and sandpaper the whole to symmetry and smoothness.

The mould for the lead keel is shown in Figure 6. It is cut with a chisel from 1 1-2″ planks—1-2″ deep at the top, 3-4″ at the bottom.

Bore three holes thru the upper edge of the mould, the center one 1-2″ wide and countersunk, in which to pour the hot metal. The others are small drill holes to let the air escape.

Screw a piece of 1-2″ board over the mould, Fig. 6 B. Use melted sheet lead, lead pipe, or solder. A wood drill easily bores the screw holes and a wood plane will cut the upper edge smooth to fit the hull. File and sandpaper all other edges rounding and set the keel in place.

The whole hull is finally smoothed, and the rudder cut from 1-2″ wood



and fitted. Do not bore the rudder hole thru into the hollow hull. The rudder is mostly for looks, for in this model the sails steer the boat.

Finish the whole with one thin coat of white lead, followed by a thicker, then the final coat of varnish paint.

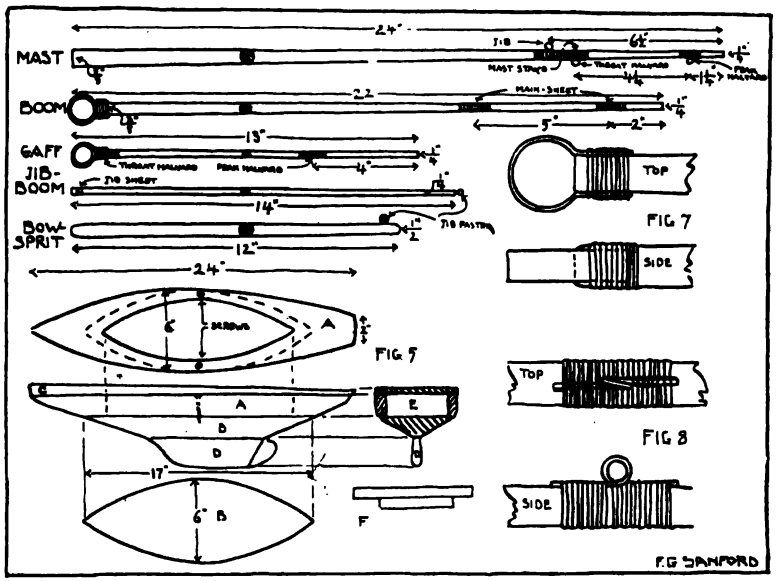
THE SPARS

Plans for these are given in detail. The method of fastening rings is shown in enlarged detail, Fig. 8. They are made from small annealed brass wire bent up around a nail and bound to the spar with fish line or strong linen thread.

It is easier to set screw eyes into the spars—the very small ones used by picture hangers—but they weaken the sticks, which is a disadvantage.

Plane the sticks to the proper taper in square section, then reduce the corners to an eight-sided figure, after that it is easy to round them.

In Figure 7 is shown the method of fastening the hoops to the gaff and boom. They may be larger wire, sheet brass or copper, or strip iron, and somewhat larger than the base of the mast.



As no holes are made thru the deck, the mast is stepped in a piece of 7-8″ wood about 1 1-2″ square. This is screwed to the deck, Fig. 2, and it has brads driven in all four edges to form cleats for fastening the rigging.

In front of the mast, place a screw eye to take the jib sheet, Fig. 2. Place two near the stern for the main sheet with a cleat in front of them.

Place two at the widest part of the deck just back of the mast to take the mast-stays or shrouds.

THE SAILS

The sails are made from light weight bleached muslin. Cut the patterns from wrapping paper exact size of sails and then in cutting the cloth allow 1-4″ all around for hemming.

After hemming, sew brass curtain rings at intervals along the inner edge, or luff of the main-sail, Fig. 1. Tie in the reef points, AA, knotting them on both sides the sail to keep them in.

These, and all other rigging, are fish line.

The gaff and boom are laced to the sail with strong linen thread.

Lace the outer edge of the jib to its line and its lower edge to the jib boom.

Fasten the jib sheet to the inner end of the jib boom. Fasten the ring in the jib boom to the ring in the bowsprit. Fasten the throat and peak halyards to the rings shown in the gaff plan.

Fasten the main sheet to the ring of the outer end of the boom.

Fasten the mast stays to the side rings indicated.

TO ASSEMBLE

Pass the mast thru the rings on the main sail, the boom, and the gaff. Set the mast in its step. Pass the mast stays thru their rings and fasten them both to the back cleat.

Pass the peak and throat halyards thru their rings in the mast, hoist the sail and fasten both lines to a side cleat on the mast step.

Set the bowsprit in place, pass the jib halyard thru its ring in the mast, hoist the jib and fasten the halyard to the other side cleat.

Pass the jib sheet thru its ring and fasten to the forward cleat.

Pass the main sheet thru its rings and fasten as shown, Fig. 1.

Set the jib and main sail at about the same angle, according to the wind, and the yacht is ready to sail.

FRANK G. SANFORD

Oneonta, N. Y.

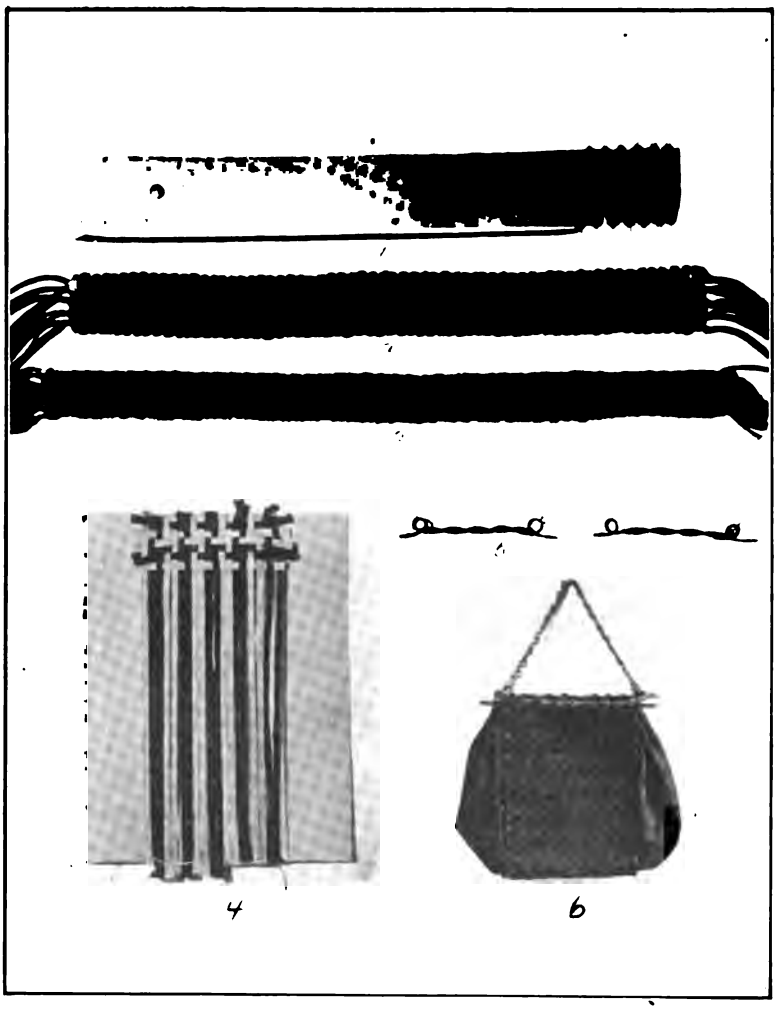
WEAVING

BELT AND BAG OF BRAID

ORAL LANGUAGE WORK. Talks on the evolution of the spinning wheel, the Colonial loom, and the modern machine. Steiger's Textile Studies for the Schoolroom, page 23.

BELT OF WOVEN BRAID

MATERIALS. Cardboard for a loom, worsted braid No 29, a ribbon needle or a large eyed darner, some pins, a needle and thread.



1. Cardboard loom for a belt. 20" x 2". Warp placed with pins. 2. Belt of shoe strings. 3. Belt of worsted braid No. 29. 4. Cardboard loom for bag (back of a drawing pad 12" x 9"). 5. Pair of Venetian iron extenders. 6. Handbag with extenders. Fifth grade work.

DIRECTIONS FOR MAKING

For the loom, cut a strip of cardboard 2″ wide and of any desired length. Begin to place the warp by pinning the braid to the edge of the card at one end. Warp along the long sides, first placing a pin in the cardboard on one side and then on the other as it is needed to warp the braid.

After all the warp has been placed, cut strands of braid two inches longer than the desired belt. This extra length is for the finishing off.

Thread one strand thru the needle and weave over and under until all the space has been filled. Weave from the two edges toward the middle. Before removing the pins, use a needle and thread to baste the little extensions made by the pins into place. Baste also or sew down the unfinished ends of the belt. Remove from the loom and fasten with a buckle or lace pins.

If properly made, this is an attractive piece of craft work. By using two or three strands of a contrasted color along the outside and filling in the middle with the same color as the warp a desirable effect is obtained. A few strands of luster thread may also be woven in at regular or irregular intervals. Belts can also be made of shoe-strings and narrow spool tape which comes in 1000 yard spools.

The cost of a handsome belt of worsted braid, No. 29, is nine cents. The weaving requires great care, and should only be done by the more advanced pupils.

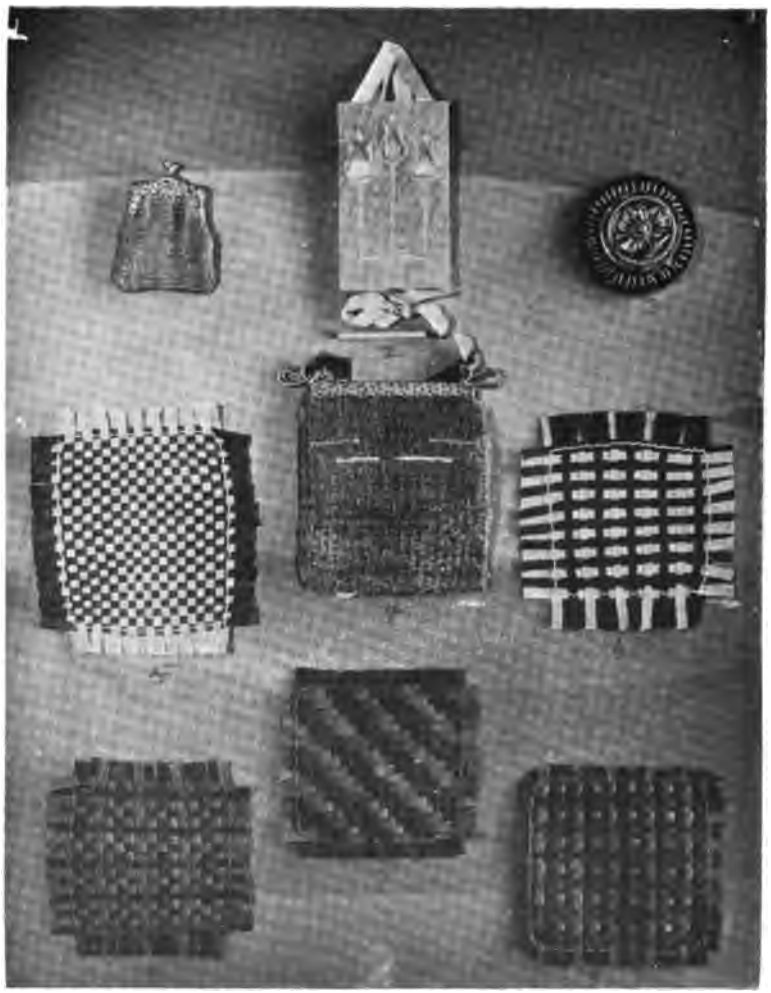
BAG WITH BENT IRON EXTENDERS

MATERIALS. Cardboard, worsted braid No. 29, a large eyed darner, a small piece of crinoline, a needle and thread, a half yard of Venetian iron, 3-16″ wide.

DIRECTIONS FOR MAKING

For the loom use a piece of cardboard 12″ x 5″. Place notches along the short sides 1-4″ apart. Use two colors of braid and let the pupils practise with colored papers in order to vary the patterns and weaves. Warp on one side only with one color of braid. For the weft, cut short lengths, 7″, of any desired colors. Weave from right to left, leaving one inch of the weft to extend on each side beyond the warp strands. After the weaving has been completed, cut a piece of crinoline 12″ x 5″ and place between the loom and the woven piece. Baste the braid to the crinoline before it is removed from the loom. After it has been taken off, turn under the unfinished ends and stitch them to the crinoline to hold them in place.

Next make a lining of soisette, sateen, or a discarded silk umbrella cover. The material for this should measure 12″ x 8″. Place the woven piece (12″



Suggestions for further work. 1. Purse of luster thread. Made in the same way as the marble bag. Colors, tan and brown. 2. Cover for a telephone pad. Material, heavy gray linen. Design cut out and woven underneath. 3. Purse of black luster thread and steel beads. Made in the same way as the Tam o'Shanter cap. 4. Bag of T. K. yarn, olive green with dashes of color. Made in the same way as the marble bag. 5–9. Studies of patterns and weaves. Material, braid No. 29.

x 5″) on this lining allowing 1 1-2″ of lining to extend on each side of the woven strip. Sew the two together neatly and then fold the combined materials to form a bag, right side in. Join the sides of the bag to within three inches of the top. Hem the open parts and fold over the projecting corners at the bottom in the form of a triangle to give an interesting shape to the bag.

To make the extenders, use two strips of Venetian iron about 3-16″ wide. Twist into a spiral form and turn back the ends, forming a small loop. Sew the bag to these extenders gathering up the superfluous parts of the lining. A chain found in hardware stores and costing three cents a yard can be attached to these extenders; also ribbon or cord. The bag can also be made without the use of the extenders. It is less attractive, however. The cost of the finished bag will be about fourteen cents if an inexpensive material be used for the lining.

KATHARINE FRENCH STEIGER
Director of Domestic Art
Rochester, N. Y.

NEEDLEWORK

SPANISH COSTUME

"I am the mighty God whose sway
Is potent over land and sea.
The heavens above us own me; nay,
The shades below acknowledge me.
I know not fear, I have my will,
Whate'er my whim or fancy be;
For me there's no impossible,
I order, bind, forbid, set free."

* * * * *

"But mightier than Love am I,
Though Love it be that leads me on,
Than mine no lineage is more high,
Or older, underneath the sun.
To use me rightly few know how,
To act without me, fewer still,
For I am Interest, and I vow
Forevermore to do thy will."

* * * * *

"With many a fanciful conceit,
Fair Lady, winsome Poesy
Her soul an offering at thy feet,
Presents in sonnets unto thee.

If thou my homage wilt not scorn,
Thy fortune, watched by envious eyes,
On wings of poesy upborne
Shall be exalted to the skies."

* * * * *

"To give, while shunning each extreme,
The sparing hand, the over-free,
Therein consists, so wise men deem,
The virtue Liberality.
But thee, Fair Lady, to enrich,
Myself a prodigal I'll prove,
A vice not wholly shameful, which
May find its fair excuse in love."

From Don Quixote-Cervantes.

The above verses are from a "speaking dance," danced by eight nymphs in two files, the god Cupid leading one, and Interest the other. The other nymphs were "Poetry," "Wit," "Birth," "Valor," "Liberality," "Largess," "Treasure," and "Peaceful Possession." The figures of the dance were interspersed with these stanzas.

From ancient histories we can easily infer that the dance has always been a favorite amusement of the Spaniards, and the dances of ancient Spain were not unlike the modern ones, for even then they consisted of lively steps and motions. The dances of the different countries are largely influenced by climate, and southern countries, where the people live out of doors, close to nature, are particularly noted for their expression of the emotions, either joy or sorrow, in music and the dance. Most southern dances, too, are accompanied by the sound of castanets. The castanets are made from ebony and are decorated with bunches of bright colored ribbon, which are an important feature of the dance. The art of using the castanets successfully can only be learned by long patient practice.

During the reign of the Moors, dances partook of an oriental character, becoming slower and slower and more langourous and putting the Spanish features decidedly in the background, but after the reconquest the deep, natural love of the Spanish people for music and dancing gave vent in new melodies and dances.

About the sixteenth century the higher and more educated classes began to condemn some of the dances which had especially free and easy movements. During the reign of King Philip V, the simple dances began to develop into gorgeous ballets, influenced, no doubt, by the drama of the day. The Spanish

dance with which everyone is most familiar, in name at least, is the "Fandango." It is said to be one of the oldest dances known, and can be traced to ancient Rome. The literal meaning of the word is "go and dance." The Fandango is danced by all classes, and by some is regarded almost as a sacred rite.

An interesting bit of history in connection with the Spanish Fandango is that the Roman Church, "angry that such a profane and wicked dance as the Fandango should be tolerated and admired in a country like Spain, noted for its purity and devoutedness of religious faith, decreed that it should be interdicted by a Papal bull. The Ecclesiastical court assembled, and the trial began with due earnestness. The judges decided that it would be unjust to condemn the dance without themselves seeing it; accordingly a couple of dancers appeared in court, to show the solemn, rigid judges the charm of the popular but accused and unfortunate dance. By degrees the faces of the dignitaries began to smile, the representatives of the Holy Church rose from their seats, involuntarily arms and feet began to move, and they were irresistibly compelled to join the dance," with the result that the dance was thereafter permitted.

In 1712 one of the Church fathers writes as follows: "You know that dance of Cadiz, famous for centuries for its voluptuous steps, and still performed in every home and suburb of city, to the delight of all spectators,—not only is it in favour with negresses and other low people, but also with ladies of highest repute and birth."

The Spanish poet, Tomas de Griarte, writes: "What people so barbarous as not to be stirred by the tunes of its national dances! All Spain thrills to the notes of the Fandango, pre-eminently the national air, and one that accompanies a step so ardent and so graceful as to be worthy of performance at Paphos or in the temple of Venus at Cnidnus."

Other dances have enjoyed a temporary popularity in Spain, among them the Gibadina, and the Allemanda, which originated in Germany. Another was the Pavane, or Grand dance, called so, not only for its stiff and serious movements, but on account of the complete costume in which the participants were always dressed. It was danced by princes in their mantles, by knights in their helmets and swords, by magistrates in their robes, and by ladies in their court dresses with long trains. Burdened by all this clothing, the movements of the dance were necessarily stiff and serious, and some of the features were to imitate the spreading of the peacock's or turkey's feathers.

Another interesting bit of history is the part that Spanish dances played in Church and religious life, for some dances formed the main part of the Church service.

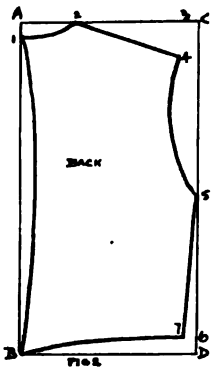


FIG 2.

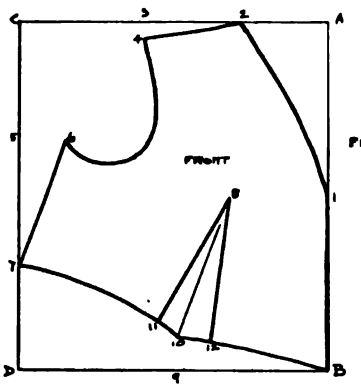


FIG 1.

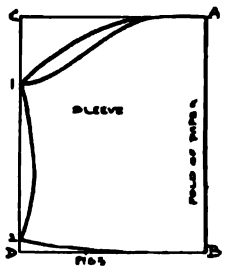


FIG 3.

PATTERNS FOR 19" DOLL

SCALE FOR WAIST 1" = 1"

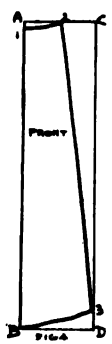


FIG 4.

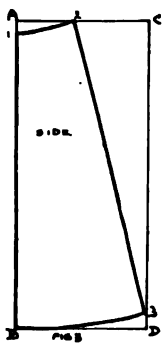


FIG 5.

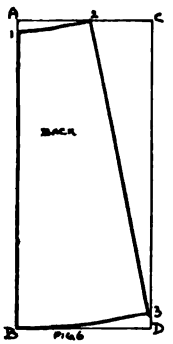


FIG 6.

SKIRT FOUNDATION

SCALE $\frac{1}{2}$" = 1"

Certain dances, too, alternated with the performances of sacred drama during the ceremonies of Corpus Christi, and about the year 1568 certain cities made laws that twice each year great Church services with dances were to take place.

Chorus dances were a feature introduced into Mass in the Cathedral of Toledo, a custom lasting until modern times. These chorus dances were danced by boys between twelve and seventeen years of age, dressed in the richest of Spanish costume.

The guitar is the national musical instrument of Spain, and the national airs never rouse the people when given with any other instrument. Wherever two or three people are together, in their leisure time, someone has a guitar, and they amuse themselves with music and dancing.

The national music of Spain is perhaps more widely spread than that of other countries, on account of Mexico, and the various South American republics which have felt its influence.

The dress of the Spanish people is influenced by nature and climate, as well as by their emotions, and the Spanish women are as distinctive in their dress, as in their music and dancing. Among all classes the mantilla, in black or white is always worn. The white mantillas are always of lace, but the black may be of any material, and vary in material and style with the social position of the wearer. Another peculiarity of the Spanish woman's dress consists in wearing fresh flowers in the hair, these forming a delightful contrast to the general dark complexion of the wearer. The fan, too, is a most necessary part of the Spanish woman's costume.

DIRECTIONS FOR PATTERN

Figure 1. Front of waist. Paper 6″ x 5 1-4″. Place and letter as in chart. Point 1 = 3″ from A. Point 2 = 1 1-2″ from A. Draw curve for front of neck. Point 3 = 3 1-8″ from A. Point 4 = 1-4″ from 3. Draw shoulder line. Point 5 = 2″ from C. Point 6 = 3-4″ from 5. Draw curve for front of arms eye, allowing a deep curve for free movem nt of arm towards front. Point 7 = 4 1-4″ from C. Draw under arm line. Point 8 = 1 3-4″ from 1. Point 9 = 2 3-4″ from D. Point 10 = 1-2″ from 9. Draw curve for bottom of waist. Points 11 and 12 = 1-4″ each side of 10. Draw lines for dart to fit in front of waist to figure.

Figure 2. Back of waist. Paper 5 3-4″ x 3″. Place and letter as in chart. Point 1 = 1-4″ from A. Point 2 = 1″ from A. Draw curve for back of neck. Point 3 = 2 3-4″ from A. Point 4 = 3-4″ from 3. Draw shoulder

seam. Point 5 = 3″ from C. Draw curve for back of arms eye. Point 6 = 1-4″ from D. Point 7 = 1-4″ from 6. Draw under arm and bottom of waist.

Figure 3. Puff Sleeve. Paper 8″ x 3 1-4″. Fold and letter as in chart. Point 1 = 1 1-4″ from C. Draw curves for upper and under portions of sleeve. Point 2 = 1-4″ from D. Draw curve for inside seam, and bottom of sleeve.

DIRECTIONS FOR CUTTING

Cut all parts of patterns with lines AB straight lengthwise of material, opening sleeve and placing fold AB, straight lengthwise. (Place AB of back of waist, and AB of front gore of skirt on lengthwise folds.)

DIRECTIONS FOR MAKING

Seam dart by placing lines 8-11 and 8-12 together.

Fit in center of back of waist, by curving in from line AB, increasing curve at waist line.

Gather sleeve at top and bottom to form puff, and trim sleeve and waist with bands of contrasting color. Join 1-B of side gore of skirt to 2-3 of front gore, and 1-B of back gore to 2-3 of side gore. Seam back seam, leaving opening for placket. Outside skirt to consist of three straight flounces overlapping each other, and allowing about once and a half for fullness. Trim lower edge of each flounce with bands of contrasting color.

The mantilla is made of lace or thin silk, is three-cornered in shape, or may be square folded diagonally and adjusted over a comb at the back of the hair, with the point of lace just touching the forehead. The hair is nearly always parted in the middle, and a bright flower at one side is quite a feature.

The costume in the picture this month is made of white dotted muslin, trimmed with black velvet ribbon. A black lace mantilla, and red flowers complete the costume.

BLANCHE E. HYDE

Director of Household Economics
Newton, Massachusetts

METALRY

ENAMELING

SUCH metals as copper and brass, copper and silver, silver and gold, and gold and platinum have been combined in the manufacture of various articles with the idea of making them more attractive and beautiful, but none of these combinations seems to be quite satisfactory because of the color contrast produced. Enameling, however, may be applied to objects in metal and add a great deal to their attractiveness and value; because of the variety of color in enamel, combinations may be made with any of the metals mentioned above and perfect harmony will be the result if the choice of color is carefully thought out. Good judgment must be exercised in the amount of enamel used. In some articles, such as a piece of jewelry, little enamel should be used, thereby giving it the character of a gem, but in applying it to larger objects, as in the cover of a box or the lining of a bowl, a larger quantity may be used in good taste. There are a great many objects to which enamel may be properly applied such as,—paper knives and letter openers, pad corners, boxes of various kinds, pen trays and ink pots, and jewelry in the form of scarf pins, cuff links, brooches, buckles, pendants, necklaces, and fobs.

There are three kinds of enamel, transparent, translucent, and opaque. More satisfactory results are obtained by using the transparent or opaque. The transparent reflects the color and surface of the metal, while the opaque gives color on the surface only. Experience in using enamel has led to two methods of its application, comparatively simple and within the possibilities of High School pupils. One method is to cut the design by the use of engraving tools, making channels about 1-32 of an inch deep to receive the enamel, and the other method is to use chasing tools either on the front or the back of the work to form raised or sunken partitions to keep the enamel in place.

The method of cutting the metal away to receive the enamel may be applied to any object but is especially applicable to small work such as pieces of jewelry. It is a method whereby more careful and accurate work may be done. To prepare a piece of work for this form of application, first transfer the design to the metal by the use of carbon paper and the smaller the article the more carefully this should be done. After using the carbon paper, the lines on the

metal should be retraced with a scratch awl to make them permanent. As in this method the metal is cut away it is necessary to have a pretty good thickness to start with and for most work of this nature 18 gauge is a good thickness. There are cases, however, where thicker metal is needed as in a belt buckle or paper knife. After transfering the design it is necessary to provide some way of holding the piece of work while it is being cut. To do this, take a piece

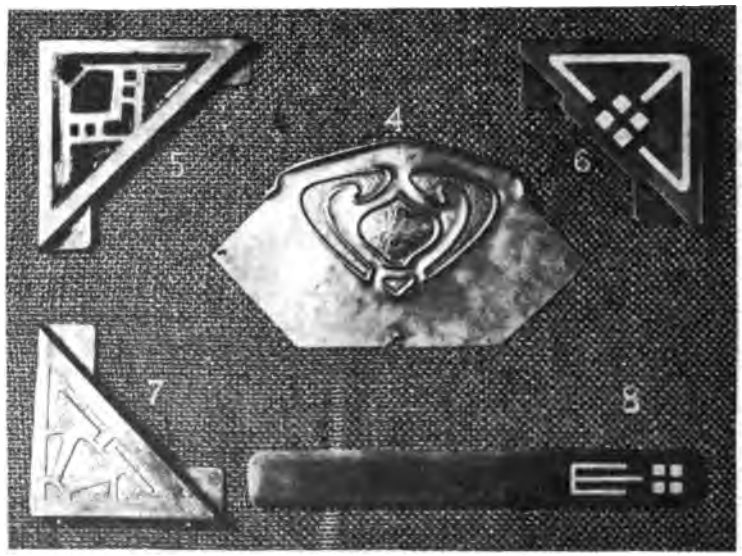
Equipment for enameling. Wedgewood mortar and pestle, agate mortar and pestle, bottle of enamel, saucer, point for applying the enamel, and piece of blotter.

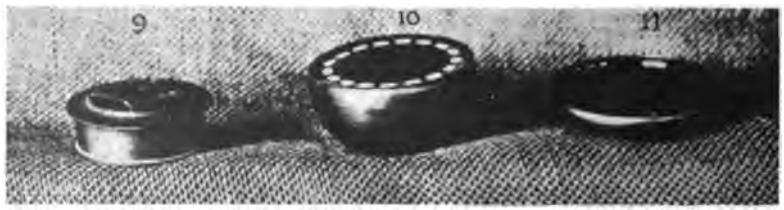
of 7-8″ board, about 4″ x 6″, or larger if the work requires, and pour on it a little melted jeweler's wax and place the piece of metal on while it is still soft. The wax hardens as it cools and will hold the work firmly in place. Now take the engraving tool and with the handle placed in the palm of the hand and the tool itself held at an angle of about 30 degrees with the work, wriggle the tool a little from one side to the other. This motion makes greater progress possible and also makes it easier for the beginner. The edges of the parts cut away should be kept as regular and smooth as possible and the channels made uniform in depth.

The other method of applying the enamel, where depressions are made from the surface or raised lines made from the under side, is worked out as follows:—Transfer the design as in the first method either on the top or under side of the work, as you may choose, and place the metal on a pitch block or pan filled with pitch composition. Then with the chasing tool of the required size and shape held in the left hand and the chasing hammer in the right hand, hold the tool over the line where the depression is to be made and with light blows from the hammer drive the metal into the pitch until the depression is made on the line raised to the required depth. The tool used for this work must be free from sharp edges and care must be taken not to punch holes in the metal.

After the channels have been cut or the partitions or depressions made, as the case may be, the metal must be thoroly cleaned before applying the enamel. This is done by dipping in a bath of nitric acid if the article is made of copper, or in a bath of sulphuric acid if of silver. When using the nitric acid the dipping should be done very quickly on account of the rapid action of the acid on the metal and, after dipping, it should be rinsed thoroly in clean water. Care should be taken not to inhale the fumes which rise from the copper when dipping, for they are poisonous. In cleaning silver, the sulphuric acid is diluted in water and used hot in proportions of one part acid and four parts water. The piece of work and acid are placed in a copper dish and heated until the acid comes to a boil, when it is poured off and the piece thoroly rinsed.

The enamel is next prepared for application. First break it into small pieces with the hammer and, to keep it from flying, roll it in a piece of heavy wrapping paper. After being broken, it is then placed in a porcelain mortar and, with water enough to cover it, it is ground about as fine as fine sand, with the pestle. For very small work or jewelry it is ground much finer with the use of the agate mortar and pestle. The water is poured off and the enamel rinsed several times until all of the milky substance disappears. Unsatisfactory results often come from lack of care in washing the enamel. It is a good plan to have a dish of some kind to pour the washings into to save enamel that otherwise would be wasted. This waste enamel, as it is called, is used for counter enameling. After being washed, the enamel is removed from the mortar to a small saucer, by the use of a palette knife. While still wet, which allows its being spread more easily, the enamel is applied to the object with a metal pencil or tool which may be made from a piece of steel wire about 1-8″ in diameter. It is made a little flat at one end and pointed at the other. With this tool it is possible to work the enamel into the smallest corner. A piece of clean

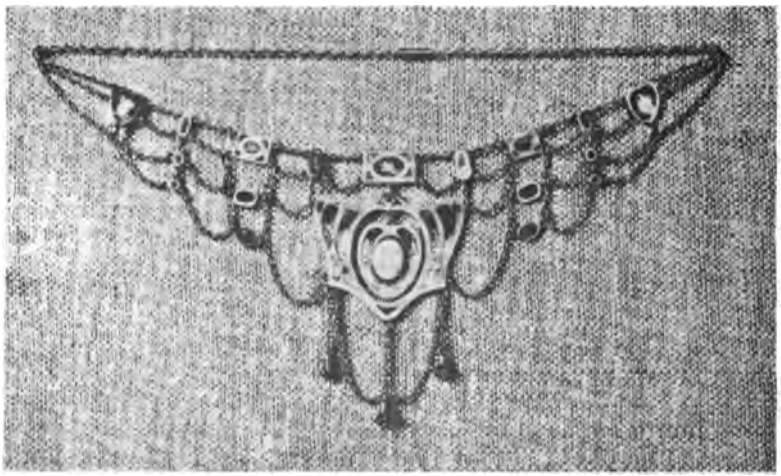




Figs. 1 and 2. Boxes in opaque enamel. Channels cut with engraving tool. Fig. 3. Box in transparent enamel. Depressions made from the surface. Fig. 4. Pad corner, prepared for enameling by the use of chasing tools. Fig. 5. Pad corner in transparent enamel. Fig. 6. Pad corner in opaque enamel. Fig. 7. Pad corner,—prepared for enameling by the use of engraving tools. Fig. 8. Paper knife in opaque enamel. Fig. 9. Circular box. Lines separating the enamel raised from under side of cover. Fig. 10. Circular box. Depression made from the surface to receive the enamel. Fig. 11. Circular tray lined with transparent enamel.

white blotting paper is also needed to dry the tool on at times and to absorb some of the moisture in the enamel when it is in place. In applying the enamel care must be taken not to get particles outside of the channels.

If soldering has been done on work that is to be enameled the soldered joints must be carefully protected from the heat before firing, as the temperature required for fusing the enamel is several times greater than that required for



soldering. A paste made of yellow ochre and water is put over the joint on all sides and is applied as thick as possible. The more of this clay we bank about the joint the more protection there is. After the enamel has been put in place and the joint protected with the clay the piece of work is put in some warm place and left until the moisture from both the enamel and the clay is thoroly evaporated. It is then ready for firing.

The firing is usually done in a kiln made for the purpose but good results may be obtained by using a Bunsen burner or a blowpipe. If the last method

The initial illustration, a watch fob, and the necklace on this page are examples of the work described. The beautiful color harmonies obtained in the combination of enamel and metal are completely lost in photographic reproduction, making the illustrations in this article lifeless and unsatisfactory.

is used, take a tripod and place a piece of heavy wire netting over the top of it and place the object to be enameled on the netting. Now that the moisture has evaporated from the enamel, leaving it a very fine powder, it must be handled very carefully as the slightest jar will displace the enamel and necessitate going all over the work again. The heat is next applied and always from the under side when using the burner or blowpipe. Watch the enamel as the firing goes on and when it settles and glazes or looks like a liquid all over, the heat should be withdrawn and the object allowed to cool very slowly. Never take it from the tripod and place it on any cold substance. This would only result in the enamel cracking. If, when cool, it is found that in places the channels are not quite full of enamel, the piece of work is again cleaned as at first, more enamel applied, and again fired. The enamel may be left just as it comes from the fire, or it may be stoned down level with the metal. This, however, can be done only with work where the design was cut out with the engraving tool. To stone it down, take a coarse emery file and rough it down first, then use one considerably finer, and finally use a scotch stone. Use water on the work while stoning it down. If transparent enamel is used it is necessary to fire it again just enough to give it a glazed surface. In using opaque enamel this is not necessary. Finally the work may be buffed a little to brighten the surface.

Note. To enable those interested to make a start in enameling, Mr. Rose will send to any address any color at 35 cents per ounce on receipt of a money order covering the amount.

AUGUSTUS F. ROSE
High School
East Boston, Mass.

AN EXHIBIT

OF WORK FROM THE PUBLIC SCHOOLS OF BROOKLINE, MASS.

THESE PLATES are from the last Report of the School Committee of the town.* While inadequate as an interpretation of the course of study, they do give a suggestion of the quality of the results secured under the supervision and instruction of the following corps of efficient specialists:

Irene Weir, Director of Drawing.

Anne B. Chamberlain, Instructor in Drawing in Primary and Grammar Grades.

Elizabeth Stone, Instructor in Drawing in the High School.

Edward P. Hutchinson, Manual Training in the High School.

Alexander Miller, Mechanical Drawing and Art Metal Work in the High School.

Plate I shows memorandum tablets made by fifth year children, picture frames by sixth year children, folios for the preservation of drawings by seventh year children, blotter pads with brass or heavy paper corners by eighth year children, and note books for history and literature by ninth year children.

Plate II gives a suggestion of the work in freehand perspective during the first year in the high school. The four outside drawings are enlargements from photographs. The two central drawings are directly from the object, the upper one from a corner of the drawing room, and the lower one a view from the drawing room window.

Plate III shows second year high school work in the enlargement from pictures and the rendering of a picture in four values.

Plate IV gives a suggestion of the course in clay modeling. A good deal of emphasis is placed upon this work for its educational value in translating two dimensions into three dimensions, and for developing the feeling for form, so important a factor in wood-carving and in designing in the round.

Plates V and VI show first and second year work in wood. The course consists largely in the making of complete objects of immediate use to the pupils in their own homes.

---

*Here reprinted thru the kindly co-operation of the Superintendent of Schools, Mr. George I. Aldrich.

Plate I. Applied design, work of grammar grade pupils.

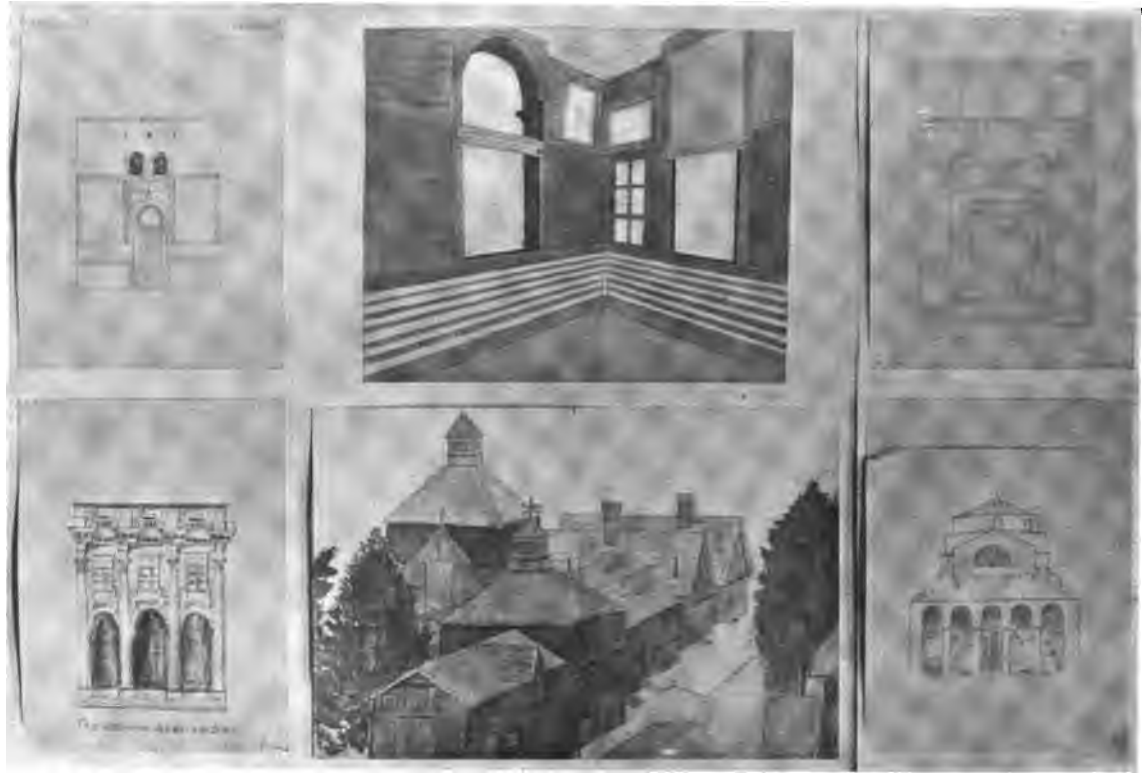


Plate II. Freehand perspective, work of first year high school pupils.

Plate III. Interpretation in four values, second year high school pupils.

Plate VI. Woodwork, second year high school pupils.

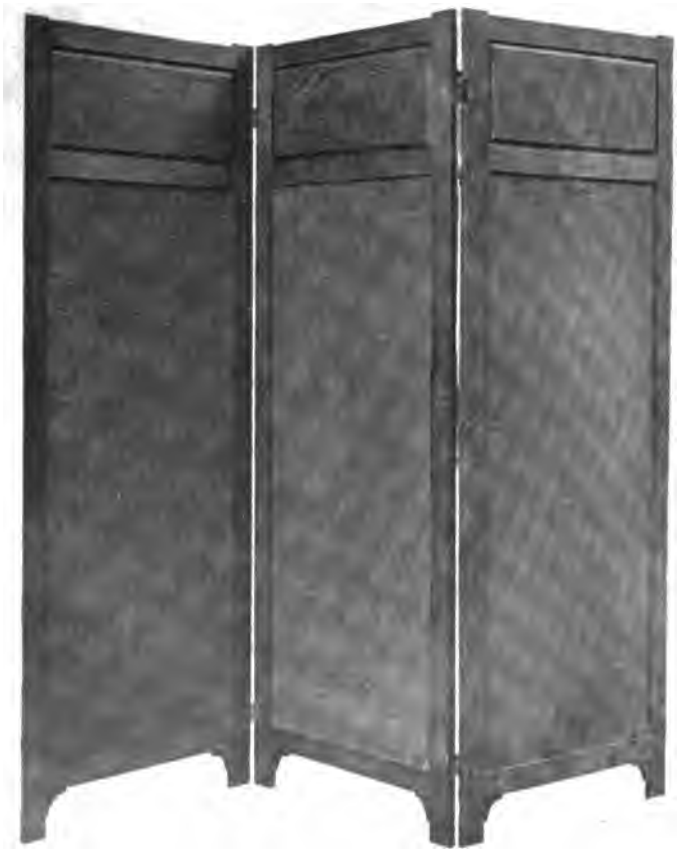


Plate V. Woodwork, first year high school pupils.

Plate VI. Woodwork, second year high school pupils.

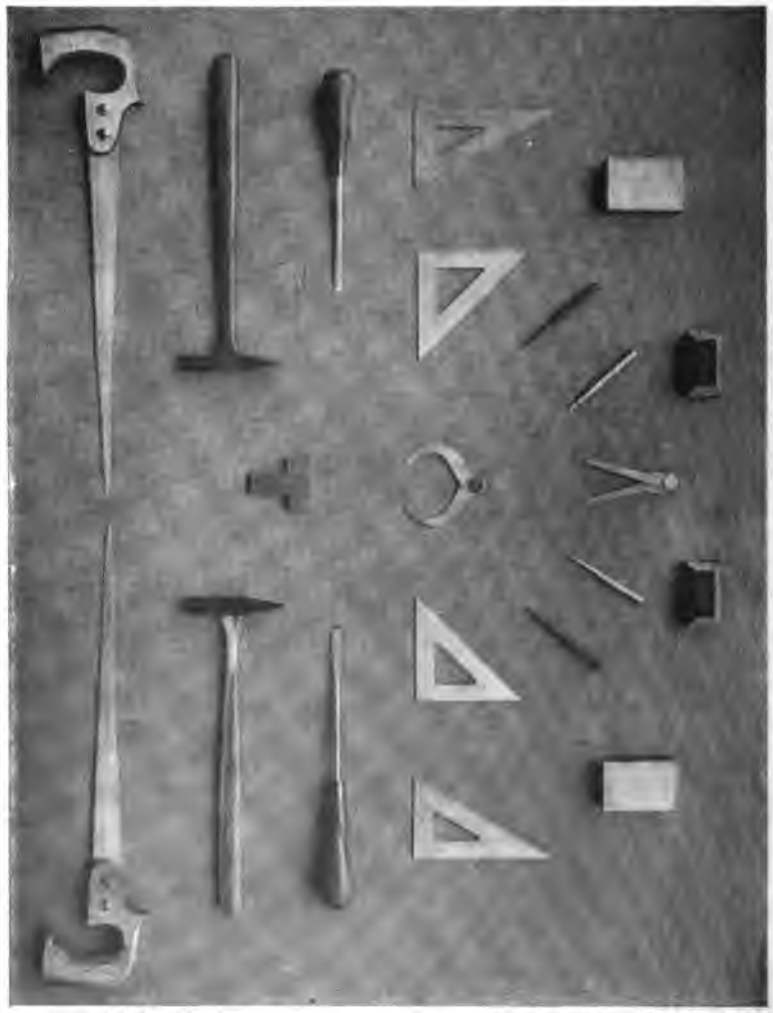


Plate VII. Work in wood and metal, second and fourth year high school pupils.

Plate VIII Art metal work, third and fourth year high school pupils

1112

Plate IX. Art metal work, fourth year high school pupils.

Plate VII hints at the practical character of the courses involving the use of metal and such processes as chipping, filing, and finishing. The element of structural design is emphasized in this work.

Plates VIII and IX give a few examples of the useful and beautiful objects produced with the finer metals, copper, brass, and silver. The emphasis upon fine proportion and temperate ornament perfectly related to the structure, is evident in these objects.

Brookline has long been a leader in education in Massachusetts, and seems destined to maintain its place indefinitely. It is one of the wealthiest towns in the world and is filled with people who heartily believe in education, and who have therefore supplied their children with perhaps the most complete and beautiful public school equipment to be found in the United States.

Culture without work is an even more de-

JUNE

Then came the jolly summer, being dight
In a thin silken cassock, colored green,
That was unlyned all, to be more light. *Spenser*

1 WD **Nicolas Poussin b. 1594.**
Painter. A son of France
but foster-child of Italy.

I bring fresh showers for the thirsting flowers,
From the sea and the streams;
I bear light shade for the leaves when laid
In their noontide dreams.
Shelley's Cloud

2 THU O that all the strawberries were rolled into one, that I might enclose all its luciousness in one bight. * * * * * Blessed be agriculture,—if one does not have too much of it. *Charles Dudley Warner*

Sweet is every sound:
Myriads of rivulets hurrying through the lawn,
The moan of doves in immemorial elms,
And murmuring of innumerable bees.
Tennyson.

3 FRI

4 SAT

5 SUN **Socrates b. 468 B.C.** Taught "Virtue is knowledge: vice is ignorance."

6 MON **Velasquez b. 1599.**
"Art," said Whistler, "dipped the Spaniard's brush in light and air."

Tell me whither,
maiden June,
Down the dusky slopes of noon,
With thy sickle of a moon
Goest thou to reap.
John B. Tabb

7 TUE Grove nods to grove. *Pope*

8 WE

9 THU **Sir John Millais b. 1829.**
English painter. When young a Pre-Raphaelite; later, far from mystical.

There is no such thing as a dumb poet or a handless painter
The essence of an artist is that he should be articulate.
Swinburne.

10 FRI **Benjamin Constant b. 1845.**
French painter, chiefly of Eastern subjects.

11 SAT **John Constable b. 1776.** **Fortuny b. 1839.**
English. The Father of Modern Landscape Painting. Spanish painter. His work bewitched our Robert Blum.

12 SUN

Summer's in the sound of June,
Summer and a deepened tune
Of the bees, and of the birds,
And of loitering lovers' words.
Leigh Hunt.

13 MON

14 TUE For the comforting light of the sun that my body embraces,
For the cool of the waters that run through the shadowy places,
For the balm of the breezes that brush my face with their fingers,
For the vesper hymn of the thrush when the twilight lingers,
For the long breath, the deep breath, the breath of a heart without care,
I will give thanks and adore Thee, God of the Open Air.
Van Dyke.

15 WD

moralizing ideal than work without culture

JUNE

God Almighty first planted a garden
Bacon.

16 THU ◐
I know a bank whereon the wild thyme grows,
Quite over-canopied with luscious woodbine,
With sweet musk roses and with eglantine. . . . . Violets dim
But sweeter than the lids of Juno's eyes,

17 FRI ◐ Battle of Bunker Hill, 1775.
Or Cytherea's breath. *Shakespeare.*

* * * * * * * *

18 SAT ◐
The tulip tree, high up,
Opened in air of June her multitude
Of golden chalices to humming birds
And silken winged insects of the sky
Bryant.

19 ✥ ○
It is a beauteous evening, calm and free;
The holy time is quiet as a nun
Breathless with adoration. *Wordsworth.*

June, Dear June!
Now God be praised
for June!
Lowell

20 MON ○ Salvator Rosa b. 1615.
Italian landscape painter.*

21 TUE ○ Summer solstice: longest day in the year.
Now is the high-tide of the year,
And whatever of life hath ebbed away
Comes flooding back with a ripply cheer.
Into every bare inlet and creek and bay. *Lowell*

22 WED ○
One broad, long midsummer day
Shall to the planet overpay
The ravage of a year of war. *Emerson.*

23 THU ○
The moon is at her full, and riding high
Floods the calm fields with light;
The airs that hover in the summer sky
Are all asleep to night.
Bryant.

24 FRI ○

25 SAT ○
Now rings the woodland loud and long,
The distance takes a lovelier hue,
And drowned in yonder living blue,
The lark becomes a sightless song. *Tennyson.*

26 ✠ ◑ Leon Bonnat b. 1833.
French painter of portraits and of religious subjects.

He that seeks popularity in art, closes the door on his own genius: as he must needs paint for other minds, and not for his own.
Mrs. Jameson.

27 MON ◑ Giorgio Vasari d. 1574.
Italian painter, architect, and author. His Lives of the Painters are often more true than accurate, and always picturesque.

That we are endowed with the sense of beauty is a pure gain which brings no evil with it.
Santayana.

28 TUE ◑

29 WED ◑ Peter Paul Rubens b. 1577.
"The fellow mixes blood with his colors."

We are all too apt to take delight in nothing and make a business of everything, including art.
Eddy.

30 THU ◑
* Painter also of battles, and moreover, musician improvisatore, actor, and poet.

Arranged by Elizabeth Kellogg.

I WANDERED LONELY AS A CLOUD

I wandered lonely as a cloud
That floats on high o'er vales and hills,
When all at once I saw a crowd,
A host, of golden daffodils;
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze.

Continuous as the stars that shine
And twinkle on the milky way,
They stretched in never-ending line
Along the margin of the bay:
Ten thousand saw I at a glance,
Tossing their heads in sprightly dance.

The waves beside them danced; but they
Out-did the sparkling waves in glee:
A poet could not but be gay,
In such a jocund company:
I gazed—and gazed—but little thought
What wealth the show to me had brought:

For oft, when on my couch I lie
In vacant or in pensive mood,
They flash upon that inward eye
Which is the bliss of solitude;
And then my heart with pleasure fills,
And dances with the daffodils.

William Wordsworth

EDITORIAL

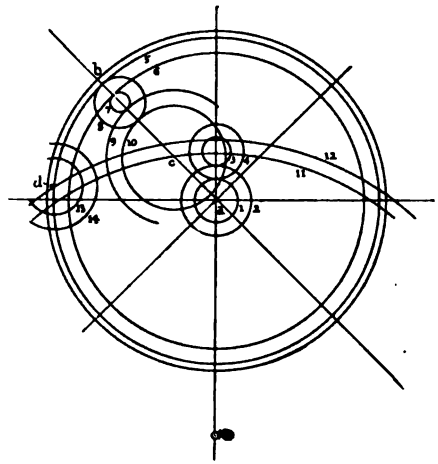
THIS number of The School Arts Book completes the ninth volume; but in it the tenth volume is already begun. That tenth volume will be, we hope, better than any yet published, —broader, richer, more successful in the embodiment of its ideals.

The Chart, published as a supplement herewith, will serve as a guide in the selection of material for the making up of the monthly parts of the new volume, but no attempt will be made to specify a course of related lessons for each grade. The Annotated Outlines will become Annotated Records of successful lessons appropriate to the month, from which the teacher will be able to select that which seems best adapted to local conditions.

Consequently the scope of the Monthly Contest will be wider. Hereafter pupils may become members of The School Arts Guild whether following The School Arts Book Outline, as published in the Chart, or any other Outline. These Contests have been such a stimulus to good work, have given the children so much pleasure, have promoted so happily a deeper interest in elementary art education in communities into which the badges and other prizes have gone, that we are anxious to extend as widely as possible the influence of the Guild.

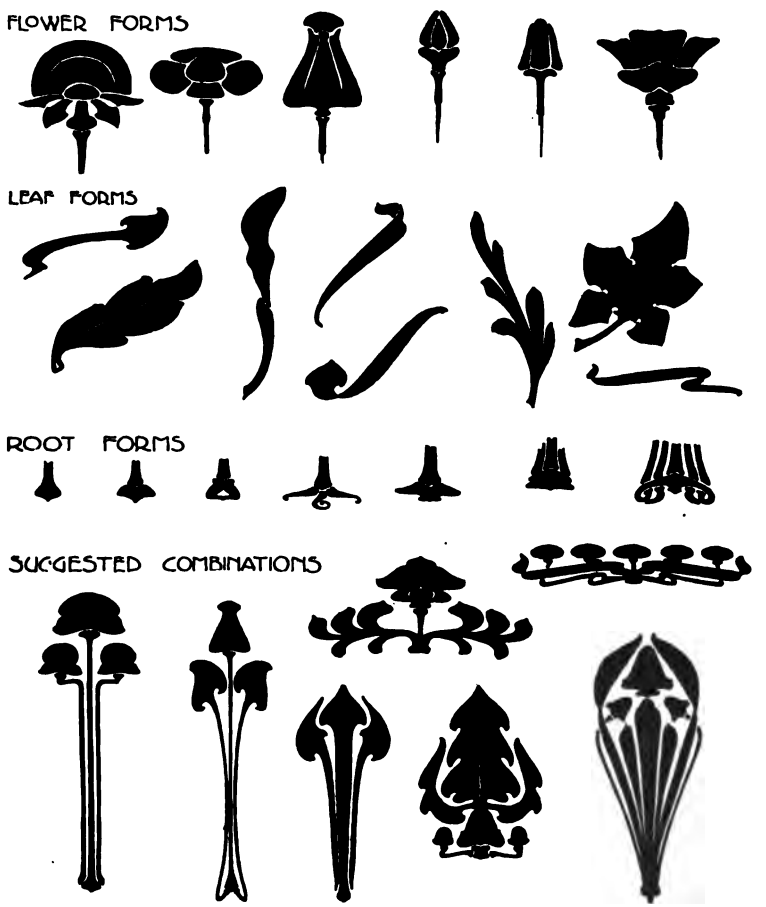
The Workshop will be kept open! For the sake of variety the resident senior craftsmen will be changed, or their line of work will be changed. During 1910-11, three genial and capable people will assist the apprentices: (1) Miss A. J. Lamphier of the State Normal School, North Adams, Massachusetts, will give lessons in Paper Construction, suitable for primary grades. Miss Lamphier is a graduate of the Salem Normal School, has studied sloyd with Mr. Larsson, and construction with Mr. Hollander, and has had years of successful experience as a grade teacher. She is now supervising industrial work, and arranging a course in elementary industrial training. (2) Mr. Frank P. Lane, Principal of the Hill Institute, Northampton, Massachu-

setts, will give lessons in Constructive Handicraft, suitable for grammar grades. Mr. Lane has been a student with many specialists, was a teacher of manual training in the public schools of Springfield, Massachusetts, and is associate manager of the Chautauqua School of Arts and Crafts. He will show how to utilize all sorts of scraps in the making of mechanical toys, and

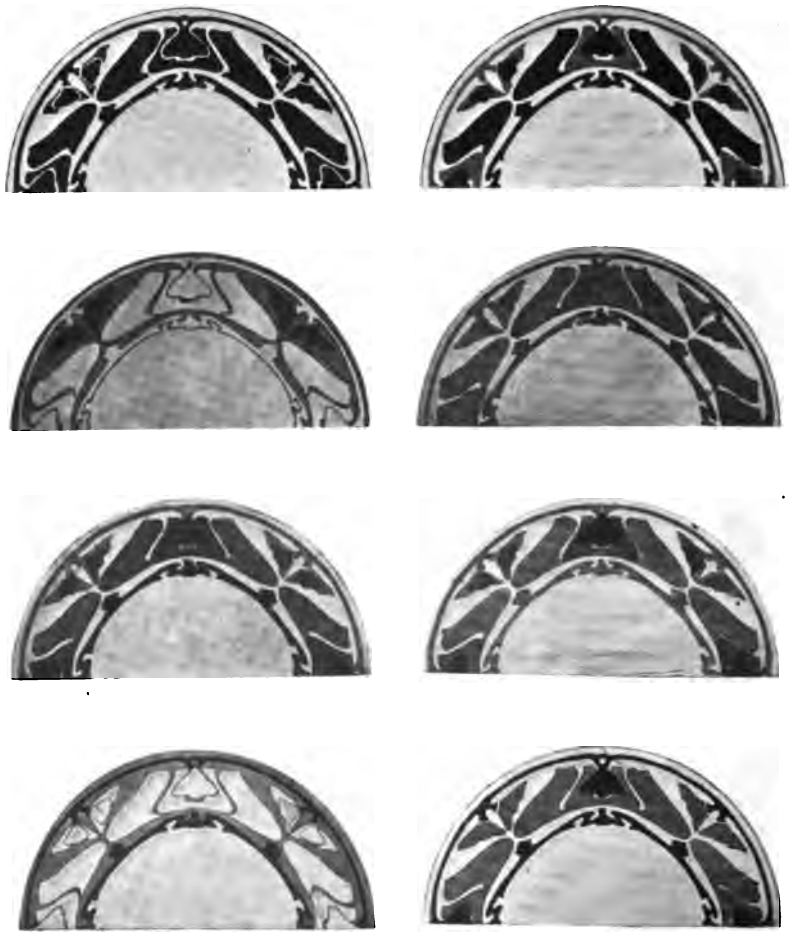


useful appliances, run by water power, electricity, etc. (3) Mr. Augustus F. Rose, author of Copper Work, teacher of metalry in the East Boston High School, and Principal of the Rhode Island Summer School of Design, will give lessons in Silver Work, suitable for high school grades. Those who have worked with Mr. Rose during the past year will know what to expect, only it will be better!

A new feature of The School Arts Book for 1910-11 will be a monthly Exhibit of good work. This will be made from photographs of results secured in some one city or institution, illus-



An example of the helpful sheets of illustrations made for his teachers by Mr. Fred Hamilton Daniels, Supervisor of Drawing, Newton, Mass.



Another illustration of teachers' reference material by Mr Fred Hamilton Daniels. Eight effects produced by various interpretations in tone of the same design.

trating the course of study or a single topic or showing the work of a grade. Among the exhibits already promised, or already in the hands of the publishers, are those from Boston, Brookline, Chicago, Cleveland, Greeley, Indianapolis, Minneapolis, Newark, Newton, St. Paul, San Francisco, and Stockton, Cal.

Examples of leather work by pupils in the Rogers High School, Newport, R. I., under the direction of Miss Lulu Z. Roderick.

Another new feature will be a monthly supplement, giving a course in design, by Miss Katherine B. Child, Instructor in the Department of Design (under Mr. C. Howard Walker) of the School of the Museum of Fine Arts, Boston. This will consist of a series of forty plates of illustrations and text, embodying the results of years of experience in teaching. Miss Child is a graduate of the School of the Museum of Fine Arts, Boston, of the School of the South Kensington Museum, London, and was the first private pupil of Mr. Lewis F. Day.

Among the regular contributors to the magazine will be Mr. Royal B. Farnum, State Inspector of Drawing and Industrial

Training, New York. Mr. Farnum is a graduate of the Massachusetts Normal Art School, was a member of the Faculty of the Cleveland School of Art, and is Director of the Art Department of the Summer School of the South, Knoxville, Tenn. His topic will be "My Work Book," a help to the grade teacher in utilizing

Examples of raffia work, stenciling, etc., by pupils in the Rogers High School, Newport, R. I., under the direction of Miss Lulu Z. Roderick.

drawing and manual training in the general school work, and a means of promoting industrial intelligence.

The series of articles on historic ornament reclassified, by Miss Alice B. Muzzey, will be completed. Miss Lanice Paton will contribute other articles on Syrian Handicrafts. Mr. Bailey will complete his series on Ten Masterpieces of Painting, and begin a new series on Symbolism of Form. Mr. Lewis F. Day of England will write on Elementary Design, and Dr. James Parton Haney on Object Drawing. Other notable contributors will be announced every month.

The illustrations in the new volume will be worth having. Miss Rachel Weston of Fryeburg, Maine, will furnish the cover stamps; Miss Helen E. Cleaves of Boston, Miss Florence Pretz of Kansas City, Mr. James Hall of New York, and Professor

Examples of stencil work, embroidery, reed weaving, etc., by grammar grade pupils under the direction of Miss Mary E. Baker, Bellows Falls, Vt.

Walter Sargent of Chicago are among those who will make drawings. The illustrations in color will continue to be of good character, beautiful, and useful in teaching. Owing to the generous kindness of Mr. William M. Chase of New York, one of the frontispieces in Volume X will be a reproduction of one of his richest masterpieces of still life in color, appropriate to harvest time.

Another feature of next year's numbers will be special prize offers, open to pupils of the elementary grades.

¶ The cover stamp for this number is a geometric interlacing from a design in niello by Baltasar Silvius, a XVIth century craftsman of unusual skill. Like all other designs of the kind it is an evolution from "the mysterious Solomon's Knot,—that intricate and endless variety of the single unbroken line of unity, —emblem of the manifold ways of the power of the one God who

A. Cabinet (end view), ivory inlay in mahogany, (about 2 feet 3 inches square), Persian, 17th century.

has neither beginning nor end."* The usual rule in interlacing is over one and under the next, then over, and under, without exception, to the place of beginning. This design by Silvius is unusual in that it starts over one and under one, and presently changes to over two and under two; then returns to the original movement, only to leave it again for the second. The two movements thus alternate in groups, thruout. In reproducing the pattern, follow the diagram, beginning the circles at a. Draw 1, 2, 3, and 4, and repeat each in turn on the vertical and horizontal radii. Then draw b, and

* From that most illuminating book The Cathedral Builders, by Leader Scott. Chapter IV, Comacini Ornamentation in the Lombard Era.

the circles 5 and 6. Now draw 7, 8, 9, and 10, in order, repeating each on the oblique radii. The center for the arcs, 11 and 12, is found by taking the diameter of circle 6, and setting it off upon the extended diameter, a e, from the point where circle 3 is inter-

B. Earthenware tiles, painted in colors, (each about 8 inches across), Syrian (Damascus), 14th century.

sected by circle 10 above its center. If the work has been done accurately, arc 11, struck from the same center, e, will pass thru the center of circle 10 at c. The arcs 13 and 14 are struck from a center at the intersection of 12 and 5. There are, of course, eight similar intersections in the design. Draw the diagram first in pencil, very fine lines, all complete circles so far as possible. Follow the interlacing in inking-in.

The frontispiece this month is from a pencil drawing by Mr. Charles H. Richert, a graduate of the Medford High School and of the Massachusetts Normal Art School, now instructor in free-hand drawing and design in the Rindge Manual Training School of Cambridge. Let us have more teachers in manual training

C. Portion of a band (about 5 inches wide), white thread embroidery. From an ancient Roman cemetery in the Fayum, Middle Egypt.

schools who can sketch so well, and more teachers in art schools who can do something in handicraft.

The three handbags reproduced as tailpieces in this number are from designs for woven bags made by German students of high school age. They show marked originality in treatment. Such brilliant contrasts in value as these exhibit make an object of this kind rather too conspicuous. One should not advertise the presence of treasure too loudly, especially when walking on the King's highway! The designs are good in form, and could be easily softened in the weaving.

¶ The June work, almost everywhere, is design. In this work two difficulties are of outstanding magnitude: adaptation of plant forms, and harmony of effect. Mr. Daniels of Newton, a supervisor prolific in helpful devices, makes drawings for his teachers to refer to for suggestions when teaching the children.

D. Woven silk in Aix la Chapelle Cathedral.
6th to 8th century A. D.

One sheet of such drawings is reproduced on page 1119. When a child is puzzled over the termination of a stalk, for example, the teacher, by reference to this plate, would be able to suggest seven different ways of finishing the end. Another chart by Mr. Daniels is reproduced on page 1120. This shows eight colorings in dark-and-light of one design. Various possible effects are thus made evident, and the teacher is enabled to advise the pupil in selecting an appropriate scheme.

Photographs of the work of children are always suggestive to other children, and perhaps even more suggestive to teachers. I am always glad, therefore, to receive by mail such photographs for reproduction. On pages 1121 and 1122 are plates from work done

in the Rogers High School, Newport, R. I., under the direction of Miss Lulu Z. Roderick. In sending the photographs Miss Roderick wrote: "The objects might be divided into two equal groups, one labeled 'Work that might be imitated,' and the other 'Designs to be avoided' (namely those put up 'to please papa and mamma'); however, please remember that we have had drawing but three years." The plate on page 1123 shows the work of girls from the fifth to the ninth grade, Bellows Falls, Vt., (done during the periods when the boys were having shop work), under the direction of Miss Mary E. Baker. All such work is good, perhaps as good as we ought to expect; but the heart of a lover of beauty is never satisfied with anything short of the best. The more familiar we are with the best, the more likely we shall be to be able to give the bright pupil a hint for improving his work. Every piece of superior work tends to raise the general average.

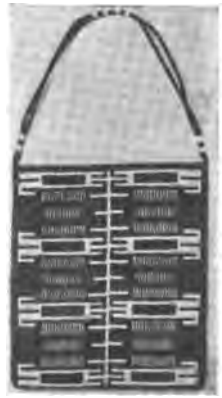
E. Woven silk fabric, Sicilian, 15th century.

The plates designated A, B, C, D, E are from photographs from the South Kensington collections, by Mr. F. M. Beaumont, Carshalton, England, and imported especially for The School Arts Book. They illustrate perfectly the adaptation of pattern to material, of technique to make. Inlaid work (A) of necessity reduces elements to silhouette; in painted decoration (B) more freedom is possible, both in the forms themselves and in the treatment of surface. In weaving and embroidering, quality of material

determines the scale of the unit and the character of its detail. If the material is coarse (C) the units must be simple and bold; small or intricate details are out of place. As the material becomes finer in texture (D), and finest (E), the units may become complex and richer in detail.

Isn't all fine art fine adjustment of relations? Perfectly adjusted elements producing a whole perfectly adjusted to the Idea,—that constitutes a work of fine art in every realm.

¶ Let us not forget to do special honor to our flag on June 14th, Flag Day. The American School Peace League, 405 Marlborough St., Boston, will send to any teacher suggestions for the celebration. It is thrilling to think that five million men in America would die if need be to defend Old Glory. It is a more significant fact that five million men and many more are living lives of love, of purity, and of truth every day, thus honoring in the harder and better way, the flag's red, white and blue. That is the highest honor one can pay to the flag of the United States of America.



CORRESPONDENCE

Mr. Henry T. Bailey, Forest City, Iowa.
North Scituate, Mass.

Dear Sir:—Here is a description of a method which I have found of help in teaching pupils how to make stencil units from "spots."

After some preliminary study of rhythm of line and stencil requirements, the pupils were all supplied with several of each of four different motifs cut from paper. These were then moved about on the desk or paper until a good arrangement was secured which was then traced and filled in with ink.

The pupils were encouraged to make as many good units as possible with these patterns before attempting anything with motifs from Nature.

Very truly,
Stella Henderson,
Supervisor Penmanship and Drawing.

Los Angeles, Cal.

Editor of The School Arts Book,

Dear Sir: I enclose herewith directions for woven slippers for dolly. The little model has proven such a delight to my classes, I think others who read your magazine might enjoy it. It was evolved from a child's request for shoes to complete the outfit of our Teddy Bear.

WOVEN SLIPPERS FOR TEDDY OR DOLLY

This model has proven successful and is very attractive to the small owners of dolls and Teddy bears.

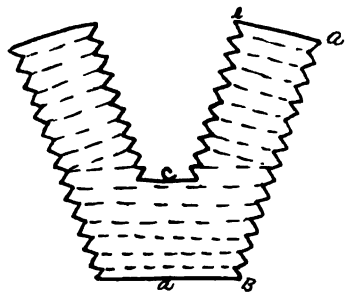
Directions. Let a b equal length of foot, measuring from center of heel around to center of toes. c d = 1-3 distance from e to d. Cut notches 1-4″ apart and 1-4″ deep.

Use strong warp, (I use carpet warp), lace as shown on diagram. Weave with zephyr or Germantown, being careful to pin each thread to end of loom as you weave to prevent shortening slipper by drawing in warp.

When finished, remove from loom by taking warp off from notches.

Sew together at back; obtain fullness over toe by drawing up first warp thread like a shirr string; sew to cardboard sole.

A child or grown-up's slipper may be made in same way, but the loom should allow an extra length of 1-2" from a to b, because the weaving shortens it that amount on a full sized slipper. Sincerely, Mary M. Cain.



Here is an enthusiastic defence of the three pigment plan of teaching color.

Goodland, Ind., Apr. 18, 1910.

Dear Mr. Bailey:—Some school boards and (some) supervisors are being led astray by such articles as the one in The School Arts Book, April 1910, by Fred V. Cann.

For two years past I have traveled in twenty states and I have yet to find a school where the multicolor box has been a success.

Let me go over a point or two that Mr. Cann finds objection to in the three color system.

Lack of brilliancy. Who wants brilliancy? One of the hardest things the drawing teacher has to contend with is the using of gaudy colors, and the colors as found in the large color boxes are rank, bug poison green, flash red; they must be modified before using, and here black is advocated to darken colors; no artist ever used black in water color painting. Why ask children to do so?

Now for the educational value; Mr. Cann says he is open to conviction on this point. Standard of color? The object painted should be the standard, and that color can be obtained with three colors.

Can anyone conceive of a benefit derived from the following process?

Teacher dictates, "Color so and so brown"; pupil dips in brown, colors object. Teacher dictates "Color so and so green"; pupil dips in green, etc.

Now the fact that these eight colors are raw and unusable as they are, causes the teacher to say this: "No, no; not that green, I want a warm green, a spring green"; and there you are, with the same problem of mixing as in the three color system

Again, there is a standard in the three color work, red, yellow, and blue. The horror that is sold for green, is that standard? No.

There is nothing "vague, illusive and confusing" in mixing equal amounts yellow and blue for a standard green, nor in mixing equal amounts of standard green and standard violet to produce a standard olive; my pupils all did this in a color scale and do it every day when they require a given color, and they know how to make a shade of green and a tint of a green without the use of black.

There is not one virtue in the multi-chrome idea, and I am willing to cover every point that may be brought up as I have done it in many a discussion.

I am very truly yours, W. W. White.

P. S. I have taught in college and normal as well, am holding a bench in an engraving house; I have come out here to get some first hand experience with children. My eyes have been opened on many of the theories that are so common in city meetings. I hope you will give the three color side a word. I don't care who says the word but I know it ought to be said. W. W. W.

In acknowledging the receipt of this letter I asked Mr. White if he ever knew of an artist who limited his palette to three colors. Here is his reply.

Goodland, Ind., Apr. 25, 1910.

Ques. "Did you ever know of a professional painter who limited himself to three colors?" Ans.—Yes, when the character of the work is no more than that required from a public school pupil, no artist would ask for more than three colors. All the artists that I have known never use ready mixed green, violet or orange, their color boxes consist of different kinds of red, yellow and blue that they may obtain subtle shades and tints which no public school pupil could understand, and should not be taught there for the same reason that the art school will not allow color of any kind for at least two or three years.

I admit that the quality of the three colors should be better, at least in the high school, but that is no argument for the many colors; they are worse if anything.

Very truly, W. W. White.

NEXT!

THE ARTS LIBRARY

BOOK REVIEWS

The Cathedral Builders. By Leader Scott. Sampson Low, Marston & Company, London.

This is not a new book (1899), but it is a book one might well read before going to Europe for the summer. It may be characterized as an attempt to account for the Cathedrals of Europe. Its contention is that they were all built, directly or indirectly, by a closely organized, thoroly trained guild of craftsmen, handing down the best traditions from classic times, and constantly learning by experience. That such a guild had its headquarters in Lombardy, probably in or near Como, in the seventh century, is proven by documentary evidence. The book is a scholarly work, illustrated with many plates from structures not often reproduced. Right or wrong, it presents about the only theory upon the basis of which the likenesses and differences of workmanship in ecclesiastical architecture in different countries and in different periods can be accounted for. The book presents a fascinating story in a convincing way. After reading it one sees the churches and cathedrals of Europe with an armed eye.

Keltic Art in Pagan and Christian Times. By J. Romilly Allen. George W. Jacobs & Co., Philadelphia.

This book is of value to the art teacher chiefly as an aid in the teaching of design. It traces the history of interlacing patterns backward to the Bronze Age, and finds their origin in weaving. Its many and excellent illustrations show primitive work, the applications of pattern in heraldry, the fundamental laws and elements of interlacing, and examples of some of the finest Keltic workmanship in stone and metal. The text is a little heavy, and must be read in the light of Leader Scott's book; but the illustrations are altogether admirable, full of helpful suggestions for the student and teacher of design.

Selected Shop Problems. By George A. Seaton. A pamphlet of 32 pages 6 x 9. Sixteen line plates. The Manual Arts Press, Peoria. Price, 20 cents.

Without wasting words on the educational, social, industrial, and spiritual values of manual training, the author begins at once upon a practical and interesting problem for boys, and produces a beautiful result. Fifteen other useful objects are shown in perspective sketches, described, and delineated in detail by means of clean working drawings. The design is structural, and for the most part without decoration. Angular and circular contours are relieved somewhat by a temperate use of fine curves.

The booklet is a safe guide to beginners in constructive woodwork, because written by an experienced teacher who has a desire for only the best.

Wood-Carving. By Andrew Bjurman, Maplewood, Mass. Price, 85 cents. Toys and Games. By the same author. Price, 75 cents.

These unique publications consist of blue prints. The first offers over 100 suggestive illustrations enabling a thoughtful worker to follow a carefully graded course in wood carving. The second gives 40 drawings of toys and game implements, such as "Play Ground Association" teachers are always looking for. The pamphlets contain on the whole, a sensible collection of exercises, better than the average in design. The patterns for wood carving are noticeably free from the Swedish chip!

RECENT PUBLICATIONS

BULLETIN NO. 10, containing the Proceedings of the Third Annual Meeting of the National Society for the Promotion of Industrial Education, at Milwaukee, Wisconsin, December 1909. May be had thru Matthew P. Adams, Secretary, 20 West 44th St., New York.

ELEMENTARY BOOKMAKING AND BOOKBINDING. By Sarah J. Freeman, Instructor in Industrial Arts, Teachers College, Columbia University. An illustrated Syllabus of a Course; excellent; valuable also for its Bibliography and section on General Information. May be had thru Bureau of Publications, Teachers College, New York. Price, 30 cents.

STEFANO SASETTA. A Sienese Painter of the Franciscan Legend. By Bernard Berenson. No art critic writing to-day speaks with greater authority than Mr. Berenson, who writes not only as one thoroly versed in the history of painting, but with an intimate knowledge of history and literature. John Lane Co. $2.00 net.

THE ÆNEID OF VIRGIL. Translated into English verse by Theodore C. Williams, with illustrations from Greek pottery and sculpture. Houghton, Mifflin Company. 75 cents.

MODERN CABINET WORK, FURNITURE AND FITMENTS. Percy A. Wells and John Hooper. An account of the theory and practice in the production of all kinds of cabinet work and furniture, with chapters on the growth and progress of design and construction. John Lane Co. $5.00 net.

AN ART-CRAFT INDEX TO THE MAY MAGAZINES

PERTINENT ARTICLES

A Great Florentine Artist—Sandro Botticelli, W. E. Sparkes, Practical Teacher, p. 651.
Ancient Crafts in Modern New York, Philip Verrill Mighels, Harper's, p. 847.
A Pageant of Chivalry, Lucy Dickson, Art and Progress, p. 192.
Art of William J. Glackens, The: A Note, A. E. Gallatin, International Studio, p. lxviii.
Blue Shadows in Nature and Art, J. W. Moran, International Studio, p. lxxiv.
Celebrated Painters of Southern Birth, Elizabeth Mitchell Stephenson, Circle, p. 290.
Colour Work in School, Drawing with Crayons, III, J. Young, Practical Teacher, p. 647.
Constructive Work in Paper, Agnes E. Farman, Practical Teacher, p. 663.
"Diana of the Tides," A Notable Gift to the Nation, Sylvester Baxter, Art and Progress, p. 195.
Drawing in Public Elementary Schools, Denver, Colorado, Charles M. Carter, Practical Teacher, p. 656.
From Nazareth to Jerusalem, Robert Hichens, Century, p. 3.
Furniture, Rugs, and Curtains, The, W. P. Sargent, Suburban Life, p. 273.
Garden Furniture, House Beautiful, p. 174.
Graeco-Egyptian Portraits, Albert M. Lythgoe, International Studio, p. 56.
Harmony of Colors, J. F. Earhart, Inland Printer, p. 216.
Historic Types of Architecture, IX, Roman Architecture, Lewis F. Pilcher, Chautauquan, p. 361.
History Lesson and Drawing, The, The Tudor Period, W. H. Elgar, Practical Teacher, p. 660.
Jean Francois Millet's Drawings of American Indians, DeCost Smith, Century, p. 78.
Jean-Honore Fragonard, James William Pattison, House Beautiful, p. 158.
John LaFarge, An Appreciation, Anna Seaton-Schmidt, Art and Progress, p. 179.
Leather Work as a Handicraft for Home Workers, Craftsman, p. 268.
Lionel P. Smythe, A. R. A., R. W. S., An Appreciation of His Work and Methods, A. L. Baldry, International Studio, p. 171.
Malbone and His Miniatures, R. T. H. Halsey, Scribner's, p. 558.
Mission Furniture: What It Is and Is Not, Virginia Robie, House Beautiful, p. 162.
Needlecraft for Primary and Secondary Schools, Ann Macbeth and Margaret Swanson, Practical Teacher, p. 665.
New Constructive Movement, The, Practical Teacher, p. 636.
New Wing of Decorative Arts of the Metropolitan Museum in New York, The, Montgomery Schuyler, International Studio, p. lv.
New York Exhibition of Independent Artists, The, Robert Henri, Craftsman, p. 160.
Overdressed Rooms, John Quincy Adams, Art and Progress, p. 189.
Painter of Childhood and Girlhood, A, Charles H. Caffin, Harper's, p. 922.
Photographing without a Camera, Eva Dean, Craftsman, p. 248.
Pictorial Stenciling: Some Experiments and Results, Herbert A. Bone, International Studio, p. 191.
Reading Journey Through Egypt, A, IX, Nubia, James Henry Breasted, Chautauquan, p. 333.
Scientific Color in Practical Printing, E. C. Andrews, Inland Printer, p. 220.
Soldiers' Monuments, James Barnes, Art and Progress, p. 185.
Some Contemporary Young Women Sculptors, William Walton, Scribner's, p. 637.
Some French and Flemish Tapestries from the Pierpont Morgan Collection, Craftsman, p. 225.
Some Recent Work of Mr. Cayley Robinson, T. Martin Wood, International Studio, p. 204.
Tenants of a Worn-out Orchard, William L. Finley, Suburban Life, p. 277.

The National Academy of Design, 85th Annual Exhibition, L. M., Art and Progress, p. 196.
Valencia, the City of the Dust, Where Sorolla Lives and Works, Zenobia Camprubi-Aymar, Craftsman, p. 206.
Voluntary Continuation Schools a Failure! A Great Educational Gap, John Perkins, Practical Teacher, p. 645.
What the Dutch School Stands For, William H. Goodyear, M. A., Ladies' Home Journal, p. 20.
Whistler Loan Exhibition at the Metropolitan Museum, The, International Studio, p. lx.
Willow Baskets, Craftsman, p. 262.

ILLUSTRATORS

Alexander, John W., Century, p. 69.
Benda, Wladyslaw, T., Century, p. 128; McClure's, frontispiece, p. 80.
Berger, W. M., Century, p. 47.
Birch, Reginald, Century, p. 160; St. Nicholas, pp. 586, 619, 623.
Blumenschein, E. L., Ladies' Home Journal, p. 7.
Bodmer, Karl, Century, pp. 79, 82, 83.
Botticelli, Practical Teacher, p. 653.
Boyd, John Rutherford, Ladies' Home Journal, pp. 17, 23.
Brush, George deForest, Circle, p. 290.
Bull, Charles L., McClure's, pp. 68, 69.
Castaigne, Andre, Century, pp. 48-52.
Cootes, F. Graham, Scribner's, pp. 617, 619.
Covey, Arthur, American Magazine, cover.
Craig, Frank, Scribner's, frontispiece.
Dickey, Robert L., Century, p. 158.
Dodge, William deLeftwich, Circle, p. 290.
Dove, Arthur G., McClure's, pp. 88-96.
Dunton, W. Herbert, Circle, pp. 263-265; Harper's, pp. 826, 830.
Edwards, Robert, Circle, pp. 277, 279; McClure's, pp. 29-35.
Elliott, John, Art and Progress, p. 195.
Everett, Walter, Ladies' Home Journal, p. 49.
Fisher, Harrison, Ladies' Home Journal, cover, p. 19.
Flagg, James Montgomery, American Magazine, p. 96.
Fosmire, C., McClure's, pp. 19-24.
Fragonard, Jean-Honore, House Beautiful, pp. 158, 159.
Fraser, Malcolm, Century, pp. 42-45.
Glackens, William J., International Studio, pp. lxviii-lxxi
Gotch, Thomas C., Harper's, pp. 922-931.
Granitsch, S., St. Nicholas, p. 616.
Gruger, F. R., Century, pp. 139-143, 157.
Guerin, Jules, Century, frontispiece, pp. 9, 15; Craftsman, p. 197.
Guipon, Leon, Century, pp. 18-23.
Hals, Franz, Ladies' Home Journal, p. 21.
Harding, George, Harper's, pp. 860, 864, 918, 920.
Hill, L. Raven, American Magazine, pp. 119-124.
Hitchcock, Lucius W., Harper's, pp. 868, 872.
Hokusai, International Studio, p. lxxv.
Inness, George, Jr., Art and Progress, p. 199.

Jacobs, William L., Harper's, pp. 950, 954.
Keller, Arthur I., Century, p. 54; Ladies' Home Journal, p. 13.
LaFarge, John, Art and Progress, pp. 179-184.
Leyendecker, Frank X., McClure's, cover.
Malbone, Edward Greene, Scribner's, pp. 559-562.
Millet, Jean Francois, Century, pp. 80-83.
Monahan, P. J., Ladies' Home Journal, p. 9.
Moran, Percy, Suburban Life, frontispiece.
Murch, Frank, Circle, cover.
Newell, Peter, Harper's, pp. 965-967.
Nordfeldt, B. J. O., Harper's, pp. 813-823.
Nyholm, Arvid, Inland Printer, p. 233.
Parker, Cushman, Good Housekeeping, cover.
Pennell, Joseph, International Studio, pp. 201-203
Peters, C. F., Scribner's, pp. 623-631.
Potter, H. S., American Magazine, pp. 79-83.
Pyle, Howard, Harper's, frontispiece, p. 840.
Raleigh, Henry, McClure's, pp. 57-64.
Reeses, The, Scribner's, cover.
Relyea, C. M., Ladies' Home Journal, p. 15.
Rembrandt, Ladies' Home Journal, p. 20.
Robinson, Cayley, International Studio, pp. 204-213.
Rosenmeyer, B. J., Ladies' Home Journal, p. 22.
Ruisdael, Ladies' Home Journal, p. 21.
Saint-Gaudens, Augustus, Art and Progress, p. 185.
Sarka, Charles, American Magazine, pp. 132, 137.
Schabelitz, R. F., American Magazine, pp. 22-31.
Shorey, G. H., Harper's, pp. 849-856.
Smythe, Lionel P., A. R. A., R. W. S., International Studio, frontispiece, pp. 171-185.
Stearns, Fred, House Beautiful, cover.
Steele, Frederick Dorr, McClure's, pp. 51-56.
Stone, Walter King, Scribner's, pp. 577-587.
Storer, Florence E., St. Nicholas, pp. 634-638.
Taylor, W. L., Ladies' Home Journal, p. 11.
Thayer, Abbott H., Art and Progress, frontispiece.
Townsend, Harry, American Magazine, pp. 14, 16; Century, p. 104.
Turner, J. M. W., International Studio, p. 227.
Uhde, F., Circle, p. 276.
Volk, Douglas, St. Nicholas, p. 588.
Whistler, James McNeill, International Studio, pp. lx-lxii.
Williams, J. L. S., Circle, pp. 269, 270.
Williamson, H. G., Harper's, pp. 211, 215.
Wright, George, Scribner's, pp. 553-557.

COLOR PLATES

A Study of a Violoncello, Practical Teacher, p. 647.
Cover Design, Arthur Covey, American Magazine.
Cover Design, Harrison Fisher, Ladies' Home Journal.

Cover Design, Frank X. Leyendecker, McClure's.
Cover Design, Frank Murch, Circle.
Cover Design, Cushman Parker, Good Housekeeping.
Cover Design, Fred Stearns, House Beautiful.
Damascus Gate, Jerusalem, The, Jules Guerin, Century, p. 15.
Examples of Needlecraft, Practical Teacher, p. 667.
"Fluelen," J. M. W. Turner, R. A., International Studio, p. 227.
"Gleaning Oats, France," Lionel P. Smythe, A. R. A., R. W. S., International Studio, p. 175.
"Home," Lionel P. Smythe, A. R. A., R. W. S., International Studio, frontispiece.
Housetops of Nazareth, The, Jules Guerin, Century, p. 9.
"Love's Message," Arvid Nyholm, Inland Printer, p. 233.
Men of Galilee, Jules Guerin, Century, frontispiece.
Miniatures, Edward Greene Malbone, Scribner's, pp. 560, 562.
Pastel Study of a Lion, John Macallan Swan, R. A., International Studio, p. 221.
Portrait Study, John W. Alexander, Century, p. 59.
Pupils' Work, Practical Teacher, p. 650.
"She told him her adventures in a breath," Howard Pyle, Harper's, frontispiece.
Sketch in Oils for "A Summer Evening," Cayley Robinson, International Studio, p. 207.
"The Breeze's Kiss," Lionel P. Smythe, A. R. A., R. W. S., International Studio, p. 180.
Tulips, four-color reproduction, Printing Art, p. 204.
"Writing on some loose sheets of paper that he held on his knee," Howard Pyle, p. 846.

NOTABLE DESIGNS

Armchairs in Period Styles, International Studio, pp. lxvi, lxvii.
Book Case, Craftsman, pp. 274, 276.
Business Cards, The Result of the Business Card Contest, Inland Printer, p. 256, etc.
Fern Dish, Craftsman, p. 278.
Frescoes in the New Academy of Music, Budapest, Aladar Korosfoi, International Studio, p. 241.
Garden Furniture, House Beautiful, pp. 174, 175.
Furniture, Mission, House Beautiful, pp. 162, 163.
Jardiniere Stand, Craftsman, pp. 274, 276.
Leather Bags, Craftsman, pp. 268, 270.
Lettering, Inland Printer, frontispiece, International Studio, p. 248.
Lighting Fixtures, Craftsman, p. 236.
Lingerie Pillows, Ladies' Home Journal, p. 31.
Metal Bracket and Lamp, Craftsman, p. 278.
Needlework, Practical Teacher, pp. 667-669.
Pictorial Stencilling, International Studio, pp. 192-200.
Rug, Suburban Life, p. 273.
Smoker's Cabinet, Craftsman, pp. 274, 276.
Stained Glass Window, Circle, p. 290.
Stencilled Curtains, Suburban Life, pp. 313, 314.
Stencilled Pillows, Good Housekeeping, pp. 637, 638.
Tapestries, Craftsman, pp. 227-230.
Title-pages, Printing Art, pp. 206, 207.
Tobacco Jar, Craftsman, p. 278.
Willow Baskets, Craftsman, pp. 262, 264, 266.

THE SCHOOL ARTS GUILD

I WILL TRY TO MAKE THIS PIECE of WORK MY BEST

APRIL CONTEST

AWARDS

First Prize, Book, a box of "Crayola," large size, (Binney & Smith), and Badge with gold decoration.

*Isaac G. Smith, VIII, Elm St. School, Westerly, R. I.

Second Prize, a box of "Crayola," small size, (Binney & Smith), and Badge with silver decoration.

*Leona Corbin, III, Easthampton, Mass.
Ruth Fitzgerald, VIII, Lincoln School, Ottawa, Ill.
*William E. Owens, VII, Elm St. School, Westerly, R. I.
*Katherine Reed, VI, Central School, Methuen, Mass.
Ruth Trotta, VI, Plains School, Milford, Mass.

Third Prize, a copy of "Blackboard Drawing," published by The Davis Press, and Badge.

Owen Beatty, VII, Farmington, Ill.
Peter Blanche, VII, Plains School, Milford, Mass.
Maria Dikeman, IV, Farmington, Ill.
Ruth King, Austin, Minn.
Arthur Malcolm, VIII, Lincoln School, Ottawa, Ill.
Phyllis O'Brien, Longfellow School, Oakland, Cal.
Marion Parsons, VI, Easthampton, Mass.
*Angelo Petrarca, VII, Plains School, Milford, Mass.
Archibald Saunders, VIII, Elm St. School, Westerly, R. I.
Gladys Tower, VII, Bancroft School, Sioux City, Iowa.

Fourth Prize, The Badge.

Sally Andrews, VI, Elm St. School, Westerly, R. I.
Ruth Berard, III, Winchendon, Mass.
Helen L. Bronson, I, 230 Mulberry St., Claremont, N. H.
Raymond Campo, IV, Niantic School, Westerly, R. I.
Clara Carlson, VI, Pigeon Cove School, Rockport, Mass.
Hale C. Colby, VII, Whitefield, N. H.
Warfrond Collins, II, Farmington, Ill.
Annie Darling, VI, 2714 Fruitvale Ave., Oakland, Cal.
Eva De Pasquale, VI, Plains School, Milford, Mass.
Lillian Dionne, VI, Elm St. School, Westerly, R. I.
Arthur Frithsen, VIII, Broadway School, Rockport, Mass.
Lucille Garner, IV, Farmington, Ill.

---

*A winner of honors in some previous contest.

Lyle Gilbertson, I, Shabbona School, Ottawa, Ill.
Harold Gregory, V, Academy St. School, Oneonta, N. Y.
Alice Grindle, Santa Rosa, Cal.
Oscar Kenyon, I, Longfellow School, Oakland, Cal.
Christine Lambert, III, Bancroft School, Sioux City, Iowa.
Hazel Lampher, II, Boys' and Girls' Home, Sioux City, Iowa.
Ruth Large, VI, 226 Center St., Bristol, Conn.
Frank Magdic, III, Farmington, Ill.
Peri Mazerati, I, Farmington, Ill.
Helen Nord, Adams School, Sioux City, Iowa.
Marvel F. Proctor, VIII, Whitefield, N. H.
Clarence Pierce, IV, East End School, Oneonta, N. Y.
Madelyn Shedd, I, Winchendon, Mass.
Levi Talbot, IV, Pleasant St. School, Westerly, R. I.
Edith Tyler, I, 411 14th St., Sioux City, Iowa.
Dorothy White, II, Winchendon, Mass.
*Ernest Williams, VI, Williamson, N. Y.
Thomas Wolf, No. 4 School, Elmira, N. Y.

Special Prize, Blackboard Drawing, by Frederick Whitney.

Third Grade, Austin, Minn.

Special Prize, The Badge.

Fannie Friedman, Port Deposit, Md.
Grace Meng, Port Deposit, Md.

Special Mention.

I. Crapper, Port Deposit, Md.
*Emma Gerding, Ottawa, Ill.
Frances Hagerty, Port Deposit, Md.
Mary Harwood, Port Deposit, Md.
Mabel Shaad, Port Deposit, Md.
Ethel Stiles, Whitefield, N. H.

Honorable Mention

Ruth Ayers, Wilkes-Barre
Ruth Barr, Oneonta
Alphonse Bartone, Milford
Teresa Bonetta, Milford
Elsie Brevik, Sioux City
Grace Brodie, Winchendon
Joe Leite Campbell, West Tisbury
Elsie Campling, Methuen
Harold Dabner, Oakland
Elizabeth Dahl, Sioux City
*Allessandro Di Giannantonio, Milford
Arthur Doane, West Tisbury
Lillian M. Easter, Claremont
Blanche W. Ellis, Provincetown
Jennie Enos, Provincetown
Helen Farrell, Ottawa
Charles Field, Rockport
Bertha Folsom, Winchendon
Lloyd French, Austin
Carroll Furgerson, Santa Rosa

*A winner of honors in some previous contest.

Ruth Gallotly, Rockport
Lester Gavitt, Westerly
Irene E. Gildea, Westerly
John Greene, Bristol
Dorothy Hamma, Oakland
Bertha Heyman, Oakland
*Nellie Hoey, Whitefield
Edgar Holmes, Farmington
Catherine Howard, Westerly
Lorna Johnson, Sioux City
Rose Joseph, Fruitvale
*Mildred Lanphear, Westerly
Priscilla Livingstone, Methuen
Florence Ledlum, Sioux City
Helen Mattson, Sioux City
Bernice McMahon, Farmington
Lawrence Mellana, Oakland
Lovell Mills, Oakland
Helen Moore, Santa Rosa
*Margaret Morenzoni, Westerly
Theresa Mosetter, Sioux City
Wilma Nichols, Whitefield
*Reginald Oppy, Westerly
Ethel Orr, Rockport
Dorothy Picton, Farmington
*A. Lorena Randall, Westerly
Bertha Rich, Rockport
Helen Roeth, Oakland
Ida Rutledge, Bristol
Abraham Schuman, Westerly
Paul Shedd, Winchendon
Frederick Sutton, New York
Helen Taber, Westerly
Fred Tognazzi, Milford
Bertram V——, Port Deposit
Flavia Ward, Bristol
Gardner Webb, Whitefield
Harry Weise, Fruitvale
Merrill Westerman, Sioux City
Isabella Woods, Oakland
Raymond Zook, Farmington

The scope of these contests is to be somewhat enlarged another year, as announced in the advertising pages and elsewhere. It is hoped that many other children may thus be influenced for good. Scores of letters testify of the inspirational value of this department of The School Arts Book.

Several packages of drawings arrived just too late to be included this month. The awards will be announced, therefore, in the September number.

Please remember the regulations.

Pupils whose names have appeared in The School Arts Book as having received an award, must place on the face of every sheet submitted thereafter a G, for (Guild) with characters enclosed to indicate the highest award received, and the year it was received, as follows:

These mean, taken in order from left to right, Received First Prize in 1905; Second Prize in 1906; Third Prize in 1907; Fourth Prize in 1906; Mention

*A winner of honors in some previous contest.

in 1907. For example, if John Jones receives an Honorable Mention, thereafter he puts M and the year, in a G on the face of his next drawing submitted. If on that drawing he gets a Fourth Prize, upon the next drawing he sends in he must put a 4 and the date, and so on. If he should receive a Mention after having won a Second Prize, he will write 2 and the date on his later drawings, for that is the highest award he has received.

☞Those who have received a prize may be awarded an honorable mention if their latest work is as good as that upon which the award is made, but no other prize unless the latest work is better than that previously submitted.

☞The jury is always glad to find special work included such as language papers upon subjects appropriate to the month, home work by children of talent, examples of handicraft, etc.

☞Remember to have full name and mailing address written on the back of each sheet. Send drawings flat.

☞If stamps do not accompany the drawings you send, do not expect to obtain the drawings by writing for them a month later. Drawings not accompanied by return postage are destroyed immediately after the awards are made.

☞A blue cross on a returned drawing means "It might be worse!" A blue star, fair; a red star, good; and two red stars,—well, sheets with two or three are usually the sheets that win prizes and become the property of the Davis Press.

SCHOOL ARTS SUMMER SCHOOLS

Every one of the schools mentioned here has circulars of information ready for mailing. Address the secretary or director of the school.

AMERICAN INSTITUTE OF NORMAL METHODS

Twentieth annual session: Eastern School, New England Conservatory of Music, Boston, Mass.; Western School, Northwestern University, Evanston, Illinois, July 12th to 29th, 1910.

This school offers unequalled courses in Methods, Practical Teaching, Sight-Reading, Conducting, Harmony and other subjects. In the drawing department, opportunity is given students to develop those branches in which they are especially interested.

Art students who wish to learn how to teach, grade teachers who wish to become supervisors, supervisors who wish to learn new methods of meeting old problems, should certainly investigate these schools. For full information address William M. Hatch, Manager Eastern School, 221 Columbus Avenue, Boston; or Frank D. Farr, Manager Western School, 378 Wabash Avenue, Chicago.

ART ACADEMY OF CINCINNATI

Summer term: Ten weeks, June 13 to August 20, 1910.

Endowed for thorough training. Its location in Eden Park, overlooking the city and surrounding hills, is favorable for summer work. Drawing and painting from life, and landscape-modeling. Applied design.
J. H. Gest, Director, Cincinnati, Ohio.

ART INSTITUTE OF CHICAGO SUMMER SCHOOL

Normal Instruction. June 27th to August 5th, 1910.

Painting, Drawing, Decorative Design, Sculpture, Architecture. Students enter at any time for short or continuous periods of study.

Each department thoroughly organized. Unexcelled opportunities for serious students. For prospectus and further information address Ralph Holmes, The Art Institute of Chicago.

BATCHELDER CRAFT SHOP

Pasadena, California.

Courses of Summer work are offered in Design, Composition, Pottery, Leather, Embroidery, Jewelry; beginning June 27 through a period of four weeks. Detailed information of this work will be furnished on application, Ernest A. Batchelder, Director.

BRADLEY POLYTECHNIC INSTITUTE

Peoria, Illinois, June 27 to July 30, 1910.

Course in Art Metal Work under Arthur F. Payne (silversmith, sample maker, member of Boston Society of Arts and Crafts, for two years director of Arts Crafts School, Columbus, O.). Also courses in Design, Stenciling, Leather Tooling, Freehand Drawing, Constructive Design, Elementary Handwork, Woodworking, Mechanical Drawing, Machine Drawing, Machine Tool Work, Pattern-Making, Textiles, Sewing, Dressmaking, Art Needlework, Cooking, Chemistry of Foods, Physiological Chemistry, and Bacteriology. Lectures on Manual Training by Joseph Henry Judd, Superintendent of Handicraft, Manchester, England. Three hours of work a day in each subject; full credit courses. Send for circular.

CHICAGO ACADEMY OF FINE ARTS

Special Tutoring during the summer in any branch of Art Training, at any time and for any length of time.

Also the Regular Classes in Illustration, Drawing, Painting, Cartoon, Commercial Illustration, Composition, Design, School Methods and Crafts, for which tuition is $25.00 for the three summer months.

Studios overlook Lake Michigan and are light and airy. Credits and certificates given. Boarding places on application to M. M. Newman, Secretary, No. 6 East Madison Street, Chicago, Illinois.

CHICAGO SCHOOL OF APPLIED AND NORMAL ART

Has announced a three weeks' summer term beginning August first and closing August nineteenth.

The regular art school will be in session at this time and offers to teachers and others an opportunity to study drawing and painting from the nude and costumed model, illustration and cartoon, design and composition, and other subjects, with its regular instructors. A special summer class for teachers under Miss Church's instruction, will study classroom methods, and such phases of the crafts, water color, design and composition, modeling and sketching from figure and flowers, as come under the conditions of the primary, grammar and high schools. The summer session will be held in the beautiful studios of the school, in the new Harvester Building which faces Lake Michigan and which enjoys the cool lake breezes.

COGGESHALL CAMP AND STUDIO

At Lanesville, Cape Ann, Mass. Open until September 15th.

Offers a course of instruction in drawing and painting from nature under an experienced teacher who has studied and painted in many lands. Beginners and those who have made some progress in out-of-door sketching will find here an unusual opportunity to work directly from nature, in oil, water color, charcoal or pencil by new and simplified methods. The camp buildings and studio were designed and built especially for this work and are situated beside the sea on a beautiful spot on the Cape Ann shore. This art students' camp is unique in that it provides comfortable room, good board and best of practical instruction with pleasantest vacation surroundings and can accommodate a few who do not care to work in the classes, thus enabling students to bring friends as room-mates who would enjoy the out-of-door life. An illustrated booklet on application. John I. Coggeshall, 473 Beacon Street, Lowell, Mass. After June 15th at Lanesville.

COLLEGE OF FINE ARTS, UNIVERSITY OF SOUTHERN CALIFORNIA

Summer classes in fine and applied arts.

Teachers' normal course covering all school grades. July 5th to August 27th. Catalogue on request. W. L. Judson, Dean, 212 Thorne St., Los Angeles, California.

COMMONWEALTH ART COLONY, "A PLACE FOR WORK AND PLAY"

Boothbay Harbor on the Coast-of-Maine.

This is not a camp, neither is it strictly a school. Comfortable rooms in private homes and new cottages or hotels, with bath, piano and all conveniences are the regular thing Tents and bungalows are for those who prefer the out-of-door life.

There is a great variety of picturesque subjects for artists and photographers. The workshops and studios are well equipped. Craftsmen may sell their products in the Colony store; Supervisors may take courses in methods; and Grade Teachers receive help in their Industrial or Art Work.

Many do not study at all, but come just for the outing, and because it is an interesting place full of interesting people. There is plenty of social life at the Colony and in the village.

Send for illustrated booklets. A. G. Randall, Director of Manual Arts, Providence, R. I.

SUMMER SCHOOLS

CORNELL UNIVERSITY

The Nineteenth Summer Session of Cornell University, July 6 to August 16, will offer, as in previous years, a large range of work in Industrial Education, including courses, theoretical and practical, in Drawing and Art.

For full information address The Registrar, Ithaca, N. Y.

MR. MARSHAL T. FRY'S SUMMER ART CLASS

Southampton, N. Y.

Fourth Season, July 12th to August 23rd, six weeks. The courses are of especial interest to those teaching in the schools. The various subjects considered in the courses will include Elementary Drawing and Composition of Landscape and Still Life, Sketching from the figure, advanced work in Landscape and Still Life Painting, Out-door Sketching, etc. Use of the Figure and Landscape in the Illustration of stories and verses, Cover Designs, etc.

The Principles of Design will be taught in their relation to Clay Modelling and Pottery Making, Overglaze, Keramics, Textiles, Lettering, Book Plates, Holiday Greetings, etc. Clay Modelling and Pottery will be considered more especially with reference to the needs of those who teach these subjects in the schools. Building of Pottery forms, and ornamentation, making of tiles, use of color in connection with Pottery and Modelling.

HANDICRAFT GUILD, SUMMER SESSION.

Minneapolis, Minn., June 13 to 16, 1910. Maurice I. Flagg, Director, assisted by well-known Craftsmen. Courses in Design, Water Color, Pottery, Metal and Jewelry, Leather, Bookbinding, Wood-block Printing, Weaving, and Stenciling.

Address Florence Wales, Secretary, Handicraft Guild, Minneapolis, Minn.

LYME SUMMER SCHOOL

The Ninth Season of the Lyme Summer School.

Will open as usual June fifteenth and close September fifteenth. The classes will be under the personal instruction and direction of Mr. Frank Vincent Du Mond who will give three criticisms each week. Two of these will be out of doors on figure and landscape painting. The third will be a general talk based upon all and any kind of work produced during the week. This has for its object the stimulating of personal tendencies and efforts and the consideration of the esthetic side of the summer's work. It has proven of the greatest value to students and teachers alike.

For information as to terms, materials, board, railways, etc., apply to Miss Martha L. Purdin, 131 Stuyvesant Ave., Arlington, New Jersey. After June first, Lyme, Connecticut.

MARTHA'S VINEYARD SCHOOL OF ART

Vineyard Haven, Mass. Conducted by Arthur R. Freedlander.

The Sixth Season commences June 20th, ends September 20th, 1910.

Instruction will be given in Landscape, Marine and Figure Painting in all mediums. There will be three criticisms a week. Students receiving their full share of individual attention. A well appointed Studio will be at the entire disposal of students. In inclement weather work from the model will be continued here. Class for Beginners. Terms: The tuition will be fifteen dollars a month payable in advance. A special two weeks' course at ten dollars For the season forty dollars. Special Course for Students of Architecture. This course is designed to be of great value in developing the students' facility in the handling of water color and washes. It will comprise landscape and marine painting, studying the massing of foliage, cloud and sky effects, etc. Subjects will be chosen with a view to their utility in the rendering of "projects."

Vineyard Haven, after three centuries of existence is one of the rare places left unspoiled by modern progress. The climate is delightful, and for recreation the student will find excellent boating, bathing and fishing.

MINNEAPOLIS SCHOOL OF FINE ARTS

Summer Term, June 13 to August 13, 1910.

Drawing and painting from the object; out-door sketching in black-and-white and color; sketching from the costumed figure; composition and illustration.

Normal Art Course for teachers.

Special class in out-door painting.

The schoolrooms, well lighted and accessible by elevator, are situated on the fourth floor of the public library building. For particulars apply to Robert Koehler, Director, Minneapolis, Minn.

MONHEGAN ISLAND SCHOOL OF METAL WORK AND JEWELRY

At Monhegan Island, Maine, July 5 to August 13, 1910.

The courses, with instruction three mornings each week, are planned for beginners, advanced students and teachers. Those without previous instruction will be given an opportunity to spend a useful and entertaining summer

in forming artistic pieces of jewelry and table-ware of actual financial value and service.

The Island of Monhegan lies off the coast of Maine and is one of the most attractive and unique in the North Atlantic. The fresh ocean air is a most pleasing stimulus to work in the studio, picturesquely located in the spruces within a few feet of the ocean cliffs. The uninterrupted horizon, so suggestive of mid-ocean, island traditions, boating, fishing, all afford a pleasing recreation for leisure hours.

The Director, William H. Varnum, pupil of L. H. Martin, Dr. Ross and others, has had many years of experience in teaching the subject from the craft and educational standpoint. For circulars, apply to William H. Varnum, Director, School of Fine and Applied Arts, James Millikin University, Decatur, Illinois.

NEW YORK SCHOOL OF FINE AND APPLIED ART

The Summer School of the New York School of Fine and Applied Art, from July first to August thirty-first, located at Chester, Mass., in the famous Berkshire Hills, easy of access on the main line of the Boston and Albany Railroad, one hour west from Springfield, with ten (10) trains daily. Cool, dry with pure air and water and comfortable homes, offers an unusual opportunity for Art Study, and true summer enjoyment in a rural way. Classes in out-of-door work from landscape and the model. Studio classes in illustration, from the head and sketch, Normal Art, Interior Decoration, Advertising, Design and the Crafts. All work is individual, and students may specialize in the classes best adapted to their particular need. The work is under the personal direction of Frank Alvah Parsons, who returns from Europe at this time especially to take up the work with the summer school.

NEW YORK UNIVERSITY SUMMER SCHOOL

Dr. Haney's classes in "Methods of Teaching Art in High School" and in "Practice of Design."

University Heights, for three weeks, July 6th, to 27th.

The New York University, in extending its policy of offering under Dr. Haney, post-graduate courses in the arts, presents this summer a unique and very condensed scheme of instruction in "Methods of Teaching Art in High Schools." Sixty elaborately illustrated lectures are to be given on six topics, including: "Representative Drawing" with emphasis upon memory work and constructive principles; "Figure Drawing" with the essentials of artistic

anatomy; "Pencil Drawing from Nature"; "Design" with many practical problems; "Color" with emphasis on the practical development of color harmony, and ten lectures full of new and important suggestions on "Art in relation to the life of the pupil." As the University plans to change the courses each year, this methods course will not be repeated in 1911.

Dr. Haney also gives this session his studio course in "Practice of Design" with two daily lessons and criticisms, and the development of many practical problems. A full synopsis of both courses is given in an illustrated circular issued by the University, to be obtained of Prof. James E. Lough, Director Summer School, Washington Square, New York City.

STOUT INSTITUTE

Menomonie, Wisconsin.

The Fifth Annual Summer Session will be held from August 1st to September 2nd, 1910.

Twenty-five Courses in Manual Training; Sixteen Courses in Domestic Economy; Three Courses in Art; Regular Faculty; Full Equipment of the Institute Available; Outing Camp proposed for men; First-class accommodations in dormitories for women.

For full information, address L. D. Harvey, President Stout Institute.

SUMMER INSTITUTE OF MECHANIC ARTS

Mount Hermon, Santa Cruz County, California. June 20 to July 30, six weeks.

Courses: Primary grades—Correlated and Illustrated Handwork, Art in Handwork, Cardboard Construction, Clay and Pottery, Sewing, Wood Constructions, Basketry, Weaving and Cardwork. Elementary grades—Domestic Science, Bent Iron, Riveting and Hammered Metals. Advanced grades—Domestic Science, Woodworking and Simple Furniture, Applied Design, Hammered Brass and Copper, Freehand Drawing, Water Color, Lectures.

The purposes of the Institute are: (1) To give to teachers and students of manual arts and household arts exactly such work as they wish and need; (2) To correlate art and hand work, making each project artistic, and applying all design to specific pieces of hand work; (3) To offer all work as far as possible in the open fresh air; (4) To secure instructors of broad college training and of practical experience in public school work; (5) To minimize theoretical instruction and stress especially experience in doing and making.

Individual method of instruction will prevail in all work offered. It is planned to spend every possible minute in doing.

Certificates stating quality of work and amount of time spent on each course will be issued to all members of the Institute.

All possible combinations for boarding are offered, from camp cooking to the very best hotel service. Students wishing to enter upon real camp life will find Mount Hermon an exceedingly cheap place to spend the summer.

Forty reservations will be made in Camp Sequoia for teachers and students of the Institute. The camp conveniences are all modern and hygienic.

Write to Mr. William H. Bouick, Mount Hermon, California, for all information regarding accommodations and rates. Make your reservations early. Furnished tents may be had from $2.00 a week and up. Excellent board and life in tents, $35.00 per month.

James Edwin Addicott, B. S., M. A., Director, 951 Magnolia St., Oakland, Cal. After June 5th, Mt. Hermon, Cal.

SUMMER SCHOOLS OF CHAUTAUQUA INSTITUTION.

Competent instruction. Thirteen departments, including courses in Arts and Crafts, under direction of Henry Turner Bailey. About 2,500 total yearly enrollment. The best environment for study. Famous lectures. A place whose charms are noted. Expense moderate. Catalogue on request. Chautauqua, New York.

SUMMER SCHOOL OF THE RHODE ISLAND SCHOOL OF DESIGN

Providence, R. I., July 6 to August 10.

Teachers of Drawing and Manual Training as well as Students and Craftsmen will find an unusual opportunity offered them in the courses given this summer. Those who are trying to meet the demand for an increased knowledge in the manual arts will find these courses very helpful. All work will be credited in the same way as in the winter session, and certificates will be issued to students who have satisfactorily completed a summer course.

Courses: I. Theory of Design. II. Practical Design. III. Out-door Sketch Class. IV. Metal Work for Grammar and High Schools. V. Jewelry and Silversmithing. VI. Manual Training for Elementary Schools. VII. Wood Working.

For further information send for circular, address Augustus F. Rose, Director of Summer School.

SUMMER SCHOOL OF THE SOUTH

University of Tennessee, Knoxville. Six weeks, June 21 to July 29, 1910. Twenty courses in Manual Training, Drawing, and Arts and Crafts. Adapted especially to the needs of teachers.

Under the direction of Prof. Royal Bailey Farnum, supervisor of drawing for the Department of Education of the State of New York, and Prof. Frederick James Corl, of Dupont Manual Training School, Louisville, Ky. Eight instructors. Systematic courses running through four years.

Certificates and credits for satisfactory work done. For further information, address P. P. Claxton, Superintendent.

SUMMER SKETCH CLASS

Rhoda Holmes Nicholls will take a limited number of students during the months of July and August at East Gloucester, Mass.

Tuition includes three open air lessons a week besides a general criticism on Saturday morning in the studio, of all work done during the week. East Gloucester is a well-known haunt for artists owing to its many picturesque spots, and its situation between the harbor and the ocean render it cool enough to work with ease throughout the summer.

For further information, apply to Rhoda Holmes Nicholls,
Colonial Studios, 39 West 67th St., New York.

TEACHERS COLLEGE

Professor Arthur Wesley Dow will remove his Ipswich Summer School of Art to Teachers College this summer and will be present to give personal attention to the courses. They will be similar to those formerly given at Ipswich, with the added advantage of the work offered by the college in industrial and household arts, in education and in other matters of interest to the art teacher. The libraries of the university, the textile collections and Professor Dow's own collection of Japanese prints will be available to the student. There will also be opportunity for landscape painting, and the instructor will give class criticism and illustrated lectures upon art appreciation.

CHARLES H. WOODBURY'S OGUNQUIT SUMMER SCHOOL OF DRAWING AND PAINTING

July 5th to August 13th.

Painting in Oil and Water Color. Course in Pencil Drawing especially adapted to teachers. For information apply to Miss Susan M. Ketcham, Secretary, 61 Blacherne, Indianapolis, Indiana, or Charles H. Woodbury, Ogunquit, Maine.

WORCESTER GUILD FOR TEXTILE CRAFTS

Second season. Summer Classes at Leicester, Mass., six miles from Worcester on state road. Sara Gannett Houghton, Director. Formerly teacher of Weaving and Dyeing at the Worcester Art Museum School and Crafts Shops.

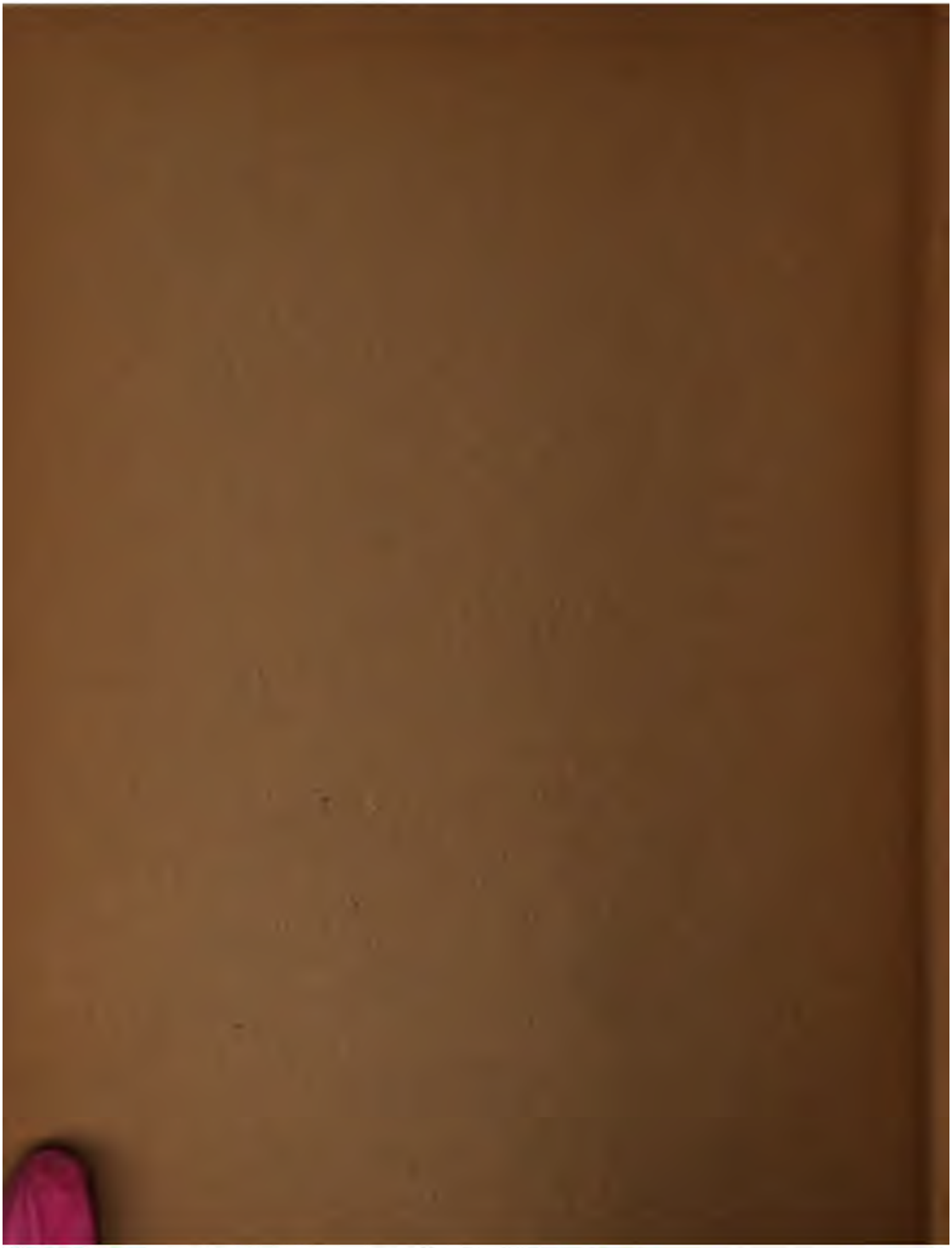
A delightful, old-fashioned, New England house with orchard and garden. A garret for looms and weaving. A big summer kitchen for dyeing. Individual instruction in weaving, stenciling and dyeing, ecclesiastical embroidery, and modern needlework, based on the study of mediæval tapestries.

For information concerning details of classes, hours and terms, and board and lodging, which may be secured near the Guild House, at very moderate rates, address Secretary Textile Crafts Guild, Leicester. Classes open about July 1st. Applications should be made at once. An Automobile Tea-room, and a Salesroom will be open for the accommodation of students, and for their work, on acceptance.

A well-known artist will conduct an out-door sketching class on the request of a sufficient number of applicants.

PRANG SUMMER SCHOOLS

Nineteen summer schools for the promotion of public school art instruction will be held under the auspices of The Prang Educational Company, during the season of 1910. These schools will be held in various cities and states throughout the country.

The Courses offered in the various schools will be thorough and up-to-date, and will present the most modern conceptions of the relation of art education to vocational training in its broadest sense, and will include instruction in normal methods, in representative and constructive drawing and in the various phases of design. Each of the schools will be in charge of instructors well known in their fields of work, and with specialists in the various departments of handicrafts and design. Several of these schools have been in operation for years, and the work taken up each summer is so related that teachers who so desire may continue their work in the various courses without undue repetition of the work. Certificates of attendance for each year are issued to students who satisfactorily complete the Course.

All of the schools are under the direction of Hugo B. Froehlich, Director of the Educational Work of The Prang Educational Company, 113 University Place, New York City. Circulars of the various schools upon request.